ENCYCLOPEDIA OF

ANCIENT GREECE

NIGEL WILSON, EDITOR

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NIGEL WILSON, EDITOR

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Hieron I
Julian the Apostate
Leonidas
Lysander
Mausolus
Nero
Pericles
Philip II
Philip V
Philopoemen
Pisistratus
Ptolemies
Pyrrhus
Seleucids
Solon
Themistocles
Zenobiao

Philosophers, Scientists, Mathematicians

Anaxagoras
Anaximander
Apollonius of Perge
Aratus
Archimedes
Aristides, Aelius
Aristotle
Aristoxenus
Carneades
Dio Cocceianus
Diogenes of Sinope
Dioscurides
Empedocles
Epicurus
Enisistratus
Eratosthenes
Euclid
Eudoxus
Galen
Heraclitus
Herodes Atticus
Heron
Herophilus Hipparchus Hippocrates
Hypatia
Parmenides
Philo
Philodemus
Plato
Plotinus
Plutarch
Porphyry
Ptolemy
Pyrrho
Pythagoras
Socrates
Theophrastus
Zeno of Citium

Historians and Biographers

Appian
Arrian
Cassius Dio
Diodorus Siculus
Diogenes Laertius
Dionysius of Halicarnassus
Ephorus
Hecataeus of Miletus
Herodotus
Hieronymus of Cardia
Josephus, Flavius
Plutarch
Polybius
Posidonius
Strabo
Theopompus
Thucydides
Timaeus
Xenophon

Religious

Clement of Alexandria, St
Origen
Paul, St
Philo

Artists

Amasis
Apelles
Execias
Lysippus
Phidias
Polygnotus
Praxiteles
Scopas

Chronological List of Individuals

*fl.*8th or 7th century BC	Hesiod
*fl.*8th or 7th century BC	Homer
*fl.*7th century BC	Archilochus
*c.*640–*c.*560 BC	Solon
b. *c.*630 BC	Sappho
*fl.*6th century BC	Aesop
*fl.*6th century BC	Amasis
*fl.*6th century BC	Execias
*fl.*6th century BC	Pythagoras
b. *c.*557/56 BC	Simonides
d. *c.*547 BC	Anaximander
*c.*530–480 BC	Leonidas
d. *c.*528 BC	Pisistratus
*fl.*525–505 BC	Cleisthenes
*c.*525–456 BC	Aeschylus
*c.*525–459 BC	Themistocles
*c.*518–*c.*438 BC	Pindar
*c.*515–*c.*440 BC	Parmenides
b. *c.*510 BC	Bacchylides
*c.*510–*c.*450 BC	Cimon
*fl.*6th–5th centuries BC	Hecataeus of Miletus
*fl. c.*500 BC	Heraclitus
*fl.*5th century BC	Polygnotus
*c.*500–428 BC	Anaxagoras
*c.*496–406 BC	Sophocles
*c.*492–429 BC	Pericles
*c.*492–432 BC	Empedocles
*c.*490–420s BC	Phidias
484–*c.*425 BC	Herodotus
*c.*480–*c.*407/06 BC	Euripides
*fl.*478–466 BC	Hieron I
470–399 BC	Socrates
*c.*460–*c.*370 BC	Hippocrates
*c.*459/58–*c.*375 BC	Lysias
451/50–404/03 BC	Alcibiades
*c.*445–374/73 BC	Evagoras
*c.*444–359 BC	Agesilaus II
*c.*436–338 BC	Isocrates
*c.*430–367 BC	Dionysius I
*c.*430–*c.*353 BC	Xenophon
429–347 BC	Plato
*fl.*4th century BC	Praxiteles
*c.*400–*c.*320s BC	Ephorus
d. *c.*395 BC	Thucydides
d.395 BC	Lysander
b. *c.*390 BC	Lysippus
*c.*390–*c.*340 BC	Eudoxus
d. *c.*386 BC	Aristophanes
384–322 BC	Aristotle
384–322 BC	Demosthenes
383/82–336 BC	Philip II
378/77–*c.*320 BC	Theopompus

*c.*371–*c.*287 BC	Theophrastus
b. *c.*370 BC	Apelles
b. *c.*370 BC	Aristoxenus
*c.*365–275 BC	Pyrrho
*c.*364–?260 BC	Hieronymus of Cardia
d.362 BC	Epaminondas
*fl.*360–335 BC	Scopas
356–323 BC	Alexander III the Great
d.353 BC	Mausolus
342–292 BC	Menander
341–270 BC	Epicurus
335–263 BC	Zeno of Citium
*c.*330–*c.*260 BC	Herophilus
d.320s BC	Diogenes of Sinope
*c.*320–*c.*240 BC	Callimachus
319–272 BC	Pyrrhus
*c.*315–*c.*240 BC	Erasistratus
*fl.*4th–3rd centuries BC	Euclid
*fl.*3rd century BC	Apollonius of Perge
*fl.*3rd century BC	Herodas
*fl.*3rd century BC	Theocritus
*c.*295–215 BC	Apollonius Rhodius
*c.*287–212/11 BC	Archimedes
d. *c.*260 BC	Timaeus
260–219 BC	Cleomenes III
*c.*252–182 BC	Philopoemen
*c.*242–187 BC	Antiochus III the Great
d. *c.*240 BC	Aratus
238–179 BC	Philip V
b. *c.*215 BC	Crates of Mallus
*c.*215–*c.*143 BC	Aristarchus of Samothrace
214/13–129/28 BC	Carneades
d. *c.*200 BC	Eratosthenes
*fl.*3rd or 2nd century BC	Lycophron
*fl. c.*2nd century BC	Nicander
*fl.*2nd century BC	Hipparchus
*c.*200–*c.*118 BC	Polybius
*c.*135–*c.*51 BC	Posidonius
*c.*110–40 BC	Philodemus
*fl.*1st century BC	Dionysius of Halicarnassus
fl. 1st century BC	Diodorus Siculus
69–30 BC	Cleopatra
*c.*64 BC–*c.* AD 19	Strabo
*fl.*1st century AD	Philo
37–68	Nero
37–after 93	Josephus, Flavius
*c.*40–112	Dio Cacceianus
*fl. c.*45–75	Dioscurides
*c.*50–120	Plutarch
d. *c.64*	Paul, St.
76–138	Hadrian
*c.*90–160	Arrian
*c.*95–160s	Appian
*fl.*1st or 2nd century	Babrius
*fl.*1st or 2nd century	Heron
*fl.*2nd century	Achilles Tatius
*fl.*2nd century	Ptolemy
*c.*101/03–177	Herodes Atticus
*c.*115–180	Pausanias

117–*c.*180	Aristides, Aelius
*c.*120–180	Lucian
129–?208/16	Galen
b. *c.*150	Athenaeus
*c.*150–*c.*215	Clement of Alexandria, St
*c.*164–after 229	Cassius Dio
184/85–254/55	Origen
*fl.*2nd or 3rd century	Diogenes Laertius
fl. 2nd or 3rd century	Longus
205–269/70	Plotinus
234–*c.*305	Porphyry
*c.*260–339	Eusebius
273/74–337	Constantine I the Great
*fl.*4th century	Heliodorus
314–*c.*393	Libanius

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Notes on Transliteration

Transliteration is always a problem when dealing with a non-Roman alphabet across such a vast span of time and space, and it is as impossible to please everybody as it is to be consistent within the rules one has set. But, on the principle that good transliteration like good writing is by definition inconspicuous, the aim throughout has been to present the reader with the form of any word which is likely to be the most familiar and least jarring. In general, ancient names have been presented in their "Latin" form (e.g., Thucydides), but medieval and modern names in their "Greek" form (e.g., Alexios I Komnenos). Since a point in time had to be chosen for the switch from "Latin" to "Greek" forms, that (entirely arbitrary) moment is taken to be the death of Justinian I (14 November, 565) who was probably the last Byzantine emperor to speak Latin. Greek is always transliterated into the Roman alphabet. Here again the more usual "ancient" system (e.g., *basileus*) is employed. Places that have a standard ancient (or English) form (such as Thessalonica or Athens) retain that form throughout. Nevertheless, inconsistencies and infelicities are inevitable and we can only crave the reader's indulgence where they occur.

GRAHAM SPEAKE

The Greek Alphabet

Capital	*Lower Case*	*Name*		*Transliteration (pre-1453/post-1453)*
A	α	Alpha	=	*a*
B	β	Beta	=	*b/v*
Γ	γ	Gamma	=	*g*
Δ	δ	Delta	=	*d*
E	ε	Epsilon	=	*e* (as e in "net")
Z	ζ	Zeta	=	*z*
H	η	Eta	=	*e* (as ee in "meet")
Θ	θ	Theta	=	*th*
I	ι	Iota	=	*i*
K	κ	Kappa	=	*k*
Λ	λ	Lambda	=	*l*
M	μ	Mu	=	*m*
N	ν	Nu	=	*n*
Ξ	ξ	Xi	=	*x*
O	ο	Omicron	=	*o* (as o in "spot")
Π	π	Pi	=	*p*
P	ρ	Rho	=	*rh, r*
Σ	σ ς	Sigma	=	*s* (ς when final letter)
T	τ	Tao	=	*t*
Y	υ	Upsilon	=	*u/f* after *a* and *e*
Φ	φ	Phi	=	*ph*
X	χ	Chi	=	*ch* (hard, as in "chord")
Ψ	ψ	Psi	=	*ps*
Ω	ω	Omega	=	*o* (as o in "lone")

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Preface

The credit for designing and seeing through the press the original edition of this Encyclopaedia belongs to Graham Speake. His aim was to produce a work of reference on all matters connected with Greece from the earliest times up to the present day. The wealth and variety of topics to be treated was daunting, but he succeeded in achieving comprehensive coverage without making the finished product seem too long or cumbrous.

This new version results from the realisation that there is also a place for a shorter work covering the same wide range of themes but concentrating on the ancient or classical world. This newly defined scope entails the need to determine what the lower chronological limit should be. Classical Greece used to be thought of as a culture chiefly remarkable for its achievements between the time of Homer and the death of Alexander. But for some considerable time now it has been recognised that what happened in the following centuries is by no means unworthy of our attention. Though scholars have differed in their views of when antiquity came to an end, for our purpose it seems appropriate to see the decisive change in the fourth century AD, when the appeal of paganism waned and the now largely Christian population of the Greco-Roman world became conscious that it belonged to a different culture. It is of course difficult when preparing a substantially revised or abbreviated version of a reference book to draw a rigid boundary. In the present case the most obvious problem was to decide about entries for prominent figures in the early Christian church, especially the apologists who engaged in controversy with the pagans. There is a similar difficulty regarding occasional notable representatives of paganism, such as the emperor Julian the Apostate or the rhetorician Libanius, who lived after the general acceptance of the new religion. I have thought it right from time to time not to eliminate references to later events if by retaining them one can help to give a proper sense of historical perspective.

While a large number of articles from the original edition are reprinted without change, others have been abbreviated as appropriate. There are a few modifications of detail. These include changes in some geographical names; for instance Corfu becomes Corcyra. On the other hand by no means all modern names disappear, because a reader who is uncertain about ancient place names will find it helpful to be able to turn to entries such as those on Libya and the Ukraine for a survey of the ancient settlements of the Greeks in those areas.

NIGEL WILSON

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As in every quality reference work, an encyclopedia must provide readers with many ways to find the information they seek and the opportunity to discover information they did not know existed. To do this the *Encyclopedia of Ancient of Greece* invites readers to explore its contents through various points of entry. All contents are arranged alphabetically to allow users to look up and find the desired articles with ease. Contents are also listed thematically to encourage users to explore articles that treat similar topics, ranging from articles on events and periods, cities and regions, and individuals to articles discussing social history, cultural history, political and military history, religious history, and economic history, to articles covering science, medicine, and philosophy. A list of individuals is arranged in chronological order to situate their contributions within the history of ancient Greece. Most important, the encyclopedia is equipped with a comprehensive analytical index that guides readers through the entire contents, directing them to the many places where issues of interest are discussed, and pointing them to new areas pertaining to their search. At the end of each article, readers will find lists of an author's writings and a bibliography of further readings that supplies a starting point for researching a topic in greater depth.

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A

ABORTION

Like other ethnic groups in the ancient Mediterranean area, the Greeks afforded the community's protection of law after a child was accepted by the father in a naming ceremony called the *amphidromia*. At any time prior to that event the foetus or child could be killed with impunity and usually without adverse moral judgement.

Abortion was practised through both chemical and surgical procedures. The latter was considered more dangerous and, consequently, most of the anecdotal and medical data refer to drugs, usually taken orally. Only after Christianity was established did this cultural pattern change and even then not dramatically. In pre-Christian Hellenic and Hellenistic societies abortion was regarded as a normal exercise of a woman. The exception was the moral and sometimes legal obligation to bear a child in wedlock when the father wanted the progeny. In Christian Greek- and Latin-speaking communities a woman was free to terminate what we regard as an early pregnancy, but not after she declared herself pregnant or when the foetal development made pregnancy obvious.

Contraception, abortion, and infanticide (provided it was before the ceremonial acceptance into the family) were means to limit family sizes as well as to dispose of unwanted, illegitimate, or deformed children. Exposed babies could be given or sold to slave traders. Hesiod (*fl. c.*700 BC) warns families not to have more than one son. Socrates said that midwives – his own mother was one – knew the drugs to "cause miscarriages if they think them desirable" (Plato, *Theaetetus*, 149d). Aristotle spoke of unspecified drugs to prevent children "before sense and life have begun in the embryo" (*Politics*, 7. 14. 10/1335b). In much the same way Plato voiced the same sentiments for public policy in the ideal state to limit unneeded children. A later report that the lawgivers of Athens and Sparta, Solon and Lycurgus, prohibited abortions is not regarded as authentic. Instead it was merely a reflection of sentiments in the 2nd century AD when Galen made the claim.

The medical writings beginning with those attributed to Hippocrates have prescriptions for causing an abortion. Sometimes they were not explicitly stated for an abortion but for stimulation of the onset of menstruation, although the function was to terminate, in our vocabulary, an early pregnancy. Such plants as the rue, pennyroyal, myrrh, juniper, and birthwort (*Aristolochae*) were among those commonly employed. Birthwort was considered suitable for late-term abortions or, similarly, to initiate labour for delayed childbirth.

The modern question of "when does life begin" was not formulated in ancient Greek society with the meaning we give to it. Plutarch said that Plato regarded the foetus as a living being, but nevertheless Plato recommended abortions for women over 40. Aristotle's biological observations on foetal development, mostly observed with birds' eggs, influenced later Christian theological thinking. Knowing that an accident or Caesarian birth can result in a live birth, Aristotle asked when the foetus developed independent life. Although he did not consistently answer the question in the same way, one of his answers heavily influenced later philosophical and religious attitudes towards abortion. When the foetus had all of its form, Aristotle said that it had *psyche*, meaning "life". The Stoics developed the notion of "soul" for which they employed the word *psyche*. The Christians, when reading Aristotle, thought that his question was not when independent life was expected but ensoulment. The only explicit reference to abortion in the Bible or Torah occurs in Exodus 21:23 in answer to a question about the fault of a person assaulting a pregnant woman with a miscarriage resulting. The answer was "life is for life". The Hebrew word for life, *nefesh*, was translated by the Septuagint as *psyche*, thus the implication in late, Classical Greek to give a "soul for a soul" as punishment for the act. Most of the Church Fathers adapted Aristotle's views and believed that ensoulment came at that point in a pregnancy when there was foetal movement. They envisioned the soul to have come from God, not the parents, and the divine act came when the foetus was formed. Prior to ensoulment a woman was free to terminate her fertility by returning to her menstrual cycle.

Not all pre-Christian or pagan Greeks subscribed to faultless abortion. For example, a Greek inscription above a sanctuary in Lydia (north Africa) prohibits entry to those who commit contraception, abortion, or infanticide. In its early version the Hippocratic Oath forbade a physician from prescribing an abortive pessary. The 2nd-century AD gynaecology writer Soranus

explained that pessaries were more dangerous than oral-route drugs, and thus to be avoided. By late Hellenistic and Roman periods, however, some versions of the oath excised the word for pessary, thereby alleging that a physician was prohibited from the administration of any kind of abortion. Probably no version of the oath was actually taken by physicians in ancient or Byzantine times, but physicians were no doubt aware of the ethical values espoused.

The Stoics asserted that life began with the taking in of the first breath of cold air, but some Stoics argued that the foetus had the potential for life. No writings of Greek Stoics speak directly on abortion, but later Stoics asserted that intercourse should only be for procreation. Writing in the late 3rd century, Porphyry discussed the question of when the soul enters the new being and answered that it may be as early as when the sperm enters the womb. Porphyry's answer (among others he proposed) was not accepted in Greek culture until the latter part of the 19th century.

In the Hellenistic and Byzantine periods some modifications were made to the ancient formula regarding abortion after foetal formation. The Gnostics regarded intercourse of any kind under any circumstances as wrong. The hateful *pharmakia* (''drugs'') in biblical and early Christian works (e.g. Galatians 5:20 and *Didache*, 5. 1) are oblique references to abortifacients.

JOHN M. RIDDLE

See also **Birth; Contraception**

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ACADEMY OF ATHENS

Philosophical school founded by Plato

The Academy was a public gymnasium in Athens, sacred to the hero Academus. It was located northwest of Athens, near the Dipylon gate. Plato founded his school there about 388/87 BC when he returned to Athens from his travels in Sicily. He acquired a house with a garden where Mithridates later set up a statue of him and where Speusippus, Plato's nephew and successor, erected statues of the Muses. We do not know much about the organization and legal status of the Academy. Although Plato was not the first to found a school of secondary education in Athens, his school had certain distinctive characteristics. Membership of the Academy was not the exclusive privilege of the few; nor did it presuppose adherence to certain doctrines. Plato did not charge his students – who included women – a fee. Mainly responsible for the teaching was the scholarch, but other senior members could lecture too. Subjects taught, apart from philosophy, included mathematics, astronomy, and natural science. An insight into the activity of the Academy is offered by a fragment of the comic writer Epicrates (4th century).

Unlike the founders of other schools (Socratics, sophists), Plato made provision for the continuation of the school after his death (347 BC), by appointing Speusippus as his successor. His school was maintained until the 1st century BC, enjoying an unbroken line of elected successors. Already the ancients distinguished two main phases in the history of the Academy: (1) the Old Academy from Speusippus to Crantor, and (2) the New Academy from Arcesilaus to Philo of Larissa. Later, doxographers make further divisions, often distinguishing four or five phases. The first phase is that of doctrinal Platonism, whereas with Arcesilaus (316–240 BC) the Academy enters a period of scepticism which gradually became less radical. Unfortunately not a single extant work survives from Plato's successors. Thus our knowledge of the development of Platonic philosophy is often shadowy. Figures who were regarded as crucial for later developments such as Polemo (scholarch 314–276 BC) remain entirely obscure to us. Yet our knowledge of the succession is firm thanks to a variety of ancient sources, notably a papyrus from Herculaneum (*Index Academicus*).

Speusippus had a strong interest in logic and mathematics. He elaborated Plato's theory of division and developed a theory of definition. Speusippus argued for the separate existence of numbers as immutable and eternal objects of knowledge preferable to Plato's ideas. He admitted two opposite principles: the One and the multiplicity. Yet these principles are not universal for the several kinds of substances, but each of them has its own principles. In Aristotle's view this lack of ultimate principles deprives the world of internal order and fails to account for a final cause. As regards ethics, Speusippus maintained that both pleasure and pain should be avoided as they are disturbances. Xenocrates (scholarch 339–314 BC), as we can infer from his list of writings, had a strong interest in moral philosophy, while he was also interested in giving a systematic account of the nature of gods and demons and their relation to heavenly bodies. With Polemo the interest in moral questions predominates. Crates and Crantor apparently continued Polemo's line. Crantor became renowned for his treatise ''On Grief'' and for composing the first commentary on a Platonic dialogue, namely the *Timaeus*.

The term ''New Academy'' bears a critical overtone. It was first coined by Antiochus of Ascalon (1st century BC) in order to criticize the sceptical Academy as diverging from a dogmatic Plato. Arcesilaus introduced scepticism into the Academy appealing to Socrates' aporetic method. The aim now was to challenge dogmatic doctrines dialectically. Neither Arcesilaus nor his most important successor Carneades (*c.*214–129 BC) wrote anything; their positions were expounded by their successors, Lacydes and Clitomachus respectively. Arcesilaus questioned Stoic claims that firm knowledge is attainable through sense impressions, arguing that no sense impression is such that it cannot be false. Arcesilaus' alternative to holding mere beliefs was to postulate suspension of judgement as the safest way to avoid error. Carneades systematically questioned dogmatic arguments, insisting on the impossibility of distinguishing cognitive from non-cognitive impressions. He maintained that suspension of judgement still allows for action;

we can follow plausible impressions, but we do not have to assent to them.

Philo of Larissa was to be the last scholarch of the Academy. He succeeded Clitomachus around 110 BC, but with the occupation of Athens by Sulla in 89/88 BC he fled to Rome where he continued to teach for about a decade until his death. Philo started as a faithful follower of Carneadian scepticism, but later he reinterpeted it as allowing for formation of philosophical judgements. He maintained that things are actually knowable but we lack a criterion of truth such as the Stoic one, and he argued that this position was being held in the Academy all along, thus presenting the early Academic scepticism of Arcesilaus and his followers as being a reaction to Stoic dogmatism. Antiochus, Philo's disciple, found Philo's new position infuriating. He withdrew from the Academy, reproaching the "New" (i.e. sceptical) Academy as an aberration of Plato's philosophy. He himself propounded the revival of the "Old" Academy, claiming adherence to the ancients. Interestingly Antiochus included among the ancients Aristotle and the early Peripatetics, and argued for an essential agreement between the Academy and the early Peripatos. He also thought that the Stoics were in many respects in accord with the ancients exactly because they borrowed so much from them, only modifying their terminology. Yet Antiochus failed to restore the Old Academy. His philosophical outlook was heavily Stoic; his epistemology was essentially Stoic and his ethics more Peripatetic than Stoic. Antiochus never became scholarch of the Academy; he taught in his own school in the Ptolemaion gymnasium in Athens, while the Academy was abandoned after Sulla's sack of Athens. Antiochus' own school did not last long either.

There is no evidence of any philosophical activity in the Academy in the subsequent centuries. The term "Academic" now meant "sceptic", contrasted to "Platonic" which first applied to Thrasyllus (1st century AD), the editor of Plato's works in tetralogies. Plutarch, however, tried to restore the original meaning of the term "Academic" and defended the aporetic character of Plato's thought. A formal institution of Platonism no longer existed and there were no successors of Plato. Individual Platonists taught their students in their own schools, located either in a gymnasium or in their own house. This was the case with Ammonius and his disciple Plutarch (1st century AD) and also with Taurus (2nd century). In AD 176 the Roman emperor Marcus Aurelius set up chairs for teachers of philosophy in Athens, and Atticus was probably the first incumbent of the Platonist chair. Plotinus (3rd century AD) taught in Rome in an establishment provided by a rich patron, while later Neoplatonists taught in Alexandria, Syria, and Athens. The Athenian school of Neoplatonism established successions. Proclus (5th century) claimed descent from Plato; and Damascius (6th century) argued for an unbroken "Golden Chain" of successors from the time to Plato to himself. But this was a historical illusion propagated by the Athenian Neoplatonists to lend authority to their own school, which was not located in the gymnasium of the Academy. The closure of the Academy by Emperor Justinian in 529 did not stop all philosophical activity. Simplicius and Olympiodorus wrote most of their works after that date.

GEORGE E. KARAMANOLIS

See also **Neoplatonism; Plato**

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ACARNANIA

Region in western Greece

The Ambracian gulf and the Ionian sea formed Acarnania's northern and western borders, while its border with Aetolia, to the east and south, was less stable. Mount Thyamus and the Achelous river, however, are usually considered the limits of the ancient Acarnanian state. Its most populous region was the plain of the Achelous, commanded by the town of Stratus. The increased excavation activity in Acarnania contributes to a more precise definition of its historical outline. However, issues concerning the provenance of its earliest inhabitants, the role they played in Greek history, and the development of its political institutions are still insufficiently understood due to the small number of comprehensive studies dealing with the region.

Little is known about Acarnania before its colonization by the Corinthians in the 7th century BC; in epic poetry there are references to the region, though without mentioning its name, as the kingdom of the cruel king Echetos. Information on the prehistoric inhabitants of Acarnania, the Taphians, Teleboans, Leleges, and Kouretes, is also vague. It seems that the region was

not heavily populated in the Bronze Age; all the sites of this period are located in the region of Astacus, while there is a remarkable absence of Bronze Age sites along the coast.

The Acarnanians of the early historical period moved into the region at the time of, or a little after, the Dorian migration and spoke a northwest Greek dialect, characteristics of which have been traced to Illyria and Epirus. Before the arrival of Corinthian colonists, there was a settlement at Oeniadae. According to a myth narrated by Thucydides, an oracle directed Alcmaeon, Amphiaraus' son, to establish it after his act of matricide. Thus Alcmaeon became the first ruler of this area and his son Acarnan gave his name to the people. The Corinthians colonized primarily the northwest of the territory (Leucas, Anactorium, Sollium) despite native opposition. Consequently, Corinthian artistic influence has been observed in Acarnania during the Archaic period.

Although Acarnania as a whole did not play an active role in the events of the Greek world, at least until the 4th century BC, it was involved in many wars because of its strategic position along the western sailing route to Italy. It was only the Corinthian colonies, Leucas, Anactorium, and Ambracia, which participated in the Persian Wars, sending contingents to Salamis and Plataea. In the middle of the 5th century BC contacts between Acarnania and Athens were developed, as the latter began to expand its sphere of influence in the west of Greece. With the aid of Athens the Acarnanians managed to subdue the Corinthian colonies on their coast. Being in alliance with Athens, they became involved in the Peloponnesian War and sent forces to Sicily in aid of Demosthenes.

By the mid-5th century BC the notion of *ethnos* (nation) existed among the Acarnanians as is demonstrated by the common defence of towns in cases of external attack. The individual poleis were organized into a federal state, the Acarnanian *koinon*, but they retained their autonomy. Each of them contributed troops for the defence of Acarnania, while an official body was located at Stratus from the 4th century BC. The earliest coins of the federal state were issued around 350 BC. The economy of the region was still agriculturally based in the 5th century BC; the production of grapes, olives, wheat, and barley and the keeping of livestock served local consumption, while there are no indications of interstate trade on a regular basis. The strong commercial presence of Corinth is reflected in the adoption of Corinthian coinage from the end of the 6th to the 3rd century BC.

In the Corinthian war (395 BC) Acarnania sided with Athens and its allies against the Lacedaemonians. In 390 BC the Spartan king Agesilaus II attacked Acarnania, which consequently allied with Sparta. Under the threat posed by Philip II of Macedon, the Acarnanians joined the second Athenian Confederacy and fought against him at Chaeronea (338 BC). Macedonia, however, soon replaced Athens as the Acarnanians' ally and protector, especially against Aetolia.

An Acarnanian–Macedonian alliance was encouraged by Cassander in 324 BC, in order to prevent Antigonus' activity in Aetolia which threatened the Macedonian ruler. In 314 BC the Acarnanian communities near the Aetolian border agreed to concentrate in the larger cities. In 294 BC Alexander IV ceded some rights over Acarnania to Pyrrhus in return for military assistance. During the years of Pyrrhus' rule Acarnania was prosperous because of the flow of trade from Greece to south Italy and Sicily and the temporary peace with Aetolia. This peace did not last long and frontier disputes with the Aetolians resulted in the dissolution of the Acarnanian *koinon* and the partition of Acarnania between them and the Epirotes around 252–250 BC.

In 231 BC, after the end of the war between Aetolia and Macedonia (239–234 BC), the Acarnanians managed to regain control of their territory and a year later to reestablish their league. They acquired from Epirus the island of Leucas which became their capital. The main target of the new federation's policy was the liberation of the Acarnanian communities under Aetolian control. Antigonus Doson and Philip V supported the league. In 219 BC Philip campaigned along the Aetolian–Acarnanian border and recovered Phoetiae and Oeniadae. At the end of the summer in 217 BC peace was agreed between Philip and the Aetolians at Naupactus.

The Acarnanians sided with Philip against Rome (200 BC) and as a result Leucas was separated from the *koinon* and Thyrreion became the new capital. The Acarnanian confederacy survived until 31–29 BC, but the coastal cities suffered from pirate raids and the whole region from the Roman civil wars. Following the battle of Actium (31 BC) the country was ravaged by Octavian, and its inhabitants settled in Nicopolis (founded 30 BC.)

ELENI ZIMI

See also **Aetolia**

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ACHAEA

Region in the Peloponnese

Achaea is located in the northwest of the Peloponnese, between Elis and Sicyon, in the restricted land space between the Corinthian Gulf and the mountains. The region is relatively well watered and wooded, especially in its southern portion. Its three highest peaks, Panahaiko, Erimanthos, and Aroaneia, all located in the south, are dotted with numerous attractive villages. Coastal towns in the north are separated by small bays.

Evidence for early settlement in the region includes material remains from the Neolithic, Middle Helladic, and Late Helladic eras. Vestiges of Mycenaean occupation are found in both textual accounts and archaeological data. According to Homer (*Iliad*, 2. 574) Aigion, east of Patras, was part of Agamemnon's territory. And, indeed, archaeological discoveries at Aigion include a fairly extensive Late Helladic necropolis. Pausanias reported a variety of stories connecting the region with ancient Mycenaean, Dorian, and Ionian traditions. According to his description of the upheaval following the decline of the Mycenaean centres, the local ''Ionians'' moved from Achaea to Attica while ''Dorians'' from Argos and Sparta moved into the area. Originally named ''Aigialea'', the region received its Classical name Achaea after the arrival of the Dorian settlers. Herodotus (1. 145) gives us the names of the twelve main parts, *merea*, or cities in Achaea: Aegae, Aigion, Aegira, Bura, Dyme, Helike, Olenus, Patras, Pellene, Phareae, Rhype, and Tritaeae. These cities (or regions) formed a religious and military alliance known as the First Achaean League, which lasted until the late 4th century BC. Of these cities, several gained particular importance: first Helike, then Aigion, was the meeting place of the Achaean League; and Patras (named after Patreas, chief of the Achaeans) very early on became and remained a vital economic centre.

Achaea did not play a leading political role for most of Archaic and Classical antiquity, but it did play an important part in colonial settlement in south Italy, where Achaeans founded several cities including Sybaris and Croton. Achaea also maintained political ties with other Peloponnesian states and was occasionally considered by these neighbours as a means to increase their own power. Hence, in an effort to strengthen their influence in the Peloponnese, the Spartans transferred the bones of Teisamenos (a pre-Dorian hero and son of Orestes) to Sparta. Though the Delphic oracle had reportedly ordered the transfer, the move did not ultimately strengthen the ties between the two states.

Achaean involvement in some of the greatest events in Classical Greek history seems to have been limited. Achaeans did not participate in the Persian Wars (at least neither the Spartan nor the Athenian ally lists mention the Achaeans). And while the region became strategically important during the Peloponnesian War, it only occasionally played an active role in it, as in the Athenian and Achaean battle against the Corinthians in the harbour of Patras in 429 BC.

During the 4th and 3rd centuries Greece was politically unsettled and so Achaea's importance grew, since Achaean cities had largely maintained their democratic institutions (only Pellene had ever been ruled by a dictator or tyrant) and maintained strong league alliances. Except for the earthquake that destroyed Helike in 373 BC, the Achaeans experienced relative stability after the Peloponnesian War. Treaties with the Achaean League, therefore, became an important part of the foreign policy of several states. Epaminondas of Thebes (in 366 BC), for instance, led troops into the Peloponnese and entered Achaea hoping to make an alliance and thereby check Arcadia's political strength. He easily won an alliance there, but it did not last because the Thebans unwisely decided to overturn the local governments. Resistance and revolt resulted, causing the Thebans to lose Achaea, and drawing Sparta and Achaea into a short-lived, but close, association. As Macedonian influence grew, the Achaean League responded with policies opposed to Philip II, but with little longterm effect. Philip and his superior troops changed Greek politics for ever. Macedonians would remain dominant in Greece and Achaea until the coming of the Romans. Indeed, even after the death of Philip's son, Alexander the Great, the Antigonids (the dynasty founded by Antigonus I) took control of the region and in 303 BC parts of Achaea were held by Demetrius Poliorcetes (son of Antigonus I).

Twenty years after the Macedonians dissolved the First Achaean League, the Second Achaean League was created (280 BC). The new league was much more inclusive than its earlier version, and by the mid-3rd century it was led by Aratus of Sicyon. Aratus continued the anti-Macedonian tradition – keeping Achaea out of the Roman–Macedonian wars. This course initially benefited league members in their relations with the increasingly powerful Romans. Thus, as a result of these policies, the Romans brought most of the Peloponnese under the control of Achaea. Nevertheless, close Roman–Achaean ties were soon disturbed due to Roman interference in league affairs and their insistence that Sparta be released from the league. The Spartans had grown opposed to Achaean League power and, when forced to join the confederation, resented league treatment of them. (The Achaeans had torn down the walls of Sparta and disrupted traditional educational practices.) Sparta appealed to the Roman Senate for aid in their conflict with the league. Attempts at arbitration, influenced by a series of misunderstandings, favoured Sparta, resulting in the Achaean war (146 BC), the temporary dissolution of the league, the destruction of Corinth and Patras, and a permanent Roman presence in the region. By 31 BC Octavian made Achaea just another part of the Roman province of Achaea.

There is abundant evidence for vital religious traditions in Achaea throughout its history. Numerous temples, shrines, and sanctuaries dot the landscape. Achaean coins bear the likeness of Poseidon and Athena. In Pellene Pausanias saw a statue to Athena reportedly created by Phidias. He also mentioned an ''infallible'' oracle for the sick, located at a spring near Patras. The church of St Andrew was later built at the same site, and the waters there were considered to have miraculous powers well into the 19th century. Inhabitants of the region embraced Christianity somewhat earlier than the rest of Greece, in part, perhaps, because St Andrew preached in Patras and was martyred there. Early Christian conversion was accompanied by the urge to build churches, chapels, and monasteries. Not

surprisingly, therefore, many early Christian sites can be found in Achaea. One of the region's oldest intact Christian buildings is the monastery of Makellaria, where an inscription claims that the structure was built by Belisarius (d. 565), general of Justinian I.

CYNTHIA K. KOSSO

See also **Peloponnese**

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ACHILLES TATIUS

Novelist of the 2nd century AD

Achilles Tatius wrote the novel *Cleitophon and Leucippe*, probably in the 2nd century AD. The *Suda* credits him also with works on etymology, on remarkable people, and on astronomy; but the third of these works, entitled *On the Sphere*, may belong to a different Achilles. Photios, Eustathios, and the *Suda* refer to him as an Alexandrian. The report in the *Suda* that he became a Christian bishop is doubtful, and nothing certain is known of his life.

The eight books of his novel set forth the romantic adventures of a young Greek couple, a youth from Tyre and a maiden from Byzantium. The historical setting appears to be the Hellenistic age, but no precise dates are indicated. The narrator of the tale is the hero himself. The tone fluctuates considerably, as passion and drama alternate with wit and farce. The first portion of the novel describes how Cleitophon woos Leucippe while she and her mother are residing as guests in his father's house. To escape the suspicions of Leucippe's mother, the lovers run away and set sail for Alexandria. When a storm destroys the ship, Cleitophon and Leucippe land together on the coast of Egypt and are captured by an army of bandits, who plan to sacrifice Leucippe; but the hero and heroine are soon rescued. They travel to Alexandria and then Pharos, where Leucippe is abducted by a zealous admirer and a gang of brigands, who dupe their pursuers into believing that Leucippe is dead. Several months later Cleitophon reluctantly agrees to marry Melite, a young widow who has fallen deeply in love with him. They journey to her home in Ephesus to be wed, and there Cleitophon discovers that Leucippe is still alive and working as a slave on Melite's estate. Melite's husband Thersander, previously presumed dead, now returns to Ephesus. Incited by the wicked servant Sosthenes, he imprisons Cleitophon on a charge of adultery and develops a passionate lust for Leucippe, but his schemes are eventually foiled. Leucippe and Cleitophon return home to be married.

Like the other ancient Greek novels, Achilles Tatius' work is written in Atticist prose, that is, with vocabulary and syntax imitating those of Athenian prose authors of the 5th and 4th centuries BC. Substantial portions are highly artificial in style, reflecting the literary tastes of the Second Sophistic: for example, strings of two- and three-word phrases often interrupt the regular flow of the prose; adjacent sentences may reflect one another syntactically and rhythmically.

Achilles employs several dramatic and rhetorical elements common to the Greek novels. In addition to engaging in frequent, often witty dialogue, the characters delight in making speeches. Cleitophon and his friend Clinias debate at length the relative merits of love for boys and love for women (2. 35–38); Melite pleads passionately and eloquently when attempting to seduce Cleitophon (5. 25–26). The artificial language is concentrated in such passages, the argumentation elaborate and sometimes facetious. Achilles also exercises his rhetorical skills in copiously detailed descriptions of events and physical objects: a ship wrecked by a storm (3. 1–4), a hippopotamus (4. 2) and an elephant (4. 4), the city of Alexandria (5. 1). Particularly striking are the several descriptions of works of art, or *ekphraseis* (cf. Philostratus' *Imagines*), the most celebrated of which features a painting of Europa and the bull; situated at the opening of the novel, the lavish visual description of the maiden's abduction announces love and travel as major themes of the ensuing narrative. Other notable rhetorical elements include Achilles' theoretical discourses on the physical mechanisms and psychological effects of emotions and sensations: how kisses give pleasure (2. 8), how rage and anger may vie for control over the soul (6. 19).

Unique among the ancient Greek novels is Achilles' use of a first-person narrator, a technique that offers the reader an intimate and emotionally charged account of events and enhances the characterization of the hero. Like the first-person narrators of the pseudo-Lucianic *Ass* and Apuleius' *Metamorphoses*, Achilles' narrator sometimes appears naive, sentimental, or comic. He occasionally presents himself as an object for mild mockery, as when he is duped into thinking Leucippe dead and pitiably laments her loss (3. 16, 5. 7, and 7. 5), and when he dresses in Melite's clothing to escape Thersander (6. 1–5).

Like his fellow novelists, Achilles attaches considerable importance to the heroine's chastity. Leucippe is instructed by Artemis in a dream to preserve her virginity (4. 1), and in the final book a magical test at the temple of Artemis at Ephesus gives public proof of it (8. 6, 8. 13–14). Achilles' other characters, however, are not subject to the same scrutiny.

Achilles makes liberal use of the mythological and literary tradition. The narrator and other characters, for example,

introduce myths as subjects of *ekphraseis* and as exempla in argumentation. Melite playfully likens Cleitophon dressed in women's clothing to Achilles in disguise at the palace of Lycomedes. The characters also quote and allude to a range of authors from the Archaic, Classical, and Hellenistic periods, including Homer, Hesiod, Aristophanes, Plato, Herodotus, Demosthenes, and Theocritus. While portraying the characters as educated and urbane, such references also suggest that Achilles wrote for a sophisticated reading public.

Several papyrus fragments of the novel attest to its popularity from the 2nd to the 4th centuries AD. Achilles was again read and admired in Byzantine times. Photios and Michael Psellos comment on his faults and his merits. Achilles was a major influence on the 12th-century novelists, particularly on Eustathios Makrembolites, whose *Hysmine and Hysminias* borrows many features of Achilles' plot, including the flight of hero and heroine from home, the shipwreck, and the chastity test. Makrembolites also adopts Achilles' first-person narrative and shows a similar fondness for visual description and the analysis of emotions.

MICHAEL J. ANDERSON

See also **Novel**

Biography

Novelist of the 2nd century AD, author of *Cleitophon and Leucippe*, a romantic adventure story. Achilles was a major influence on the novels of the 12th century, notably the *Hysmine and Hysminias* of Eustathios Makrembolites.

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ACRAGAS

City in Sicily

Acragas (Agrigentum in Latin, Girgenti in Italian, then renamed Agrigento after its Latin name by Mussolini; today a provincial capital with about 55,000 inhabitants) was founded four km inland from the southwest coast of Sicily about 582/81 BC by the city of Gela and its Greek mother city Rhodes; the site, steeply rising on three sides, provided a natural fortress. Called "the most beautiful of cities" by Pindar (*Pythian* 12. 1), Acragas' importance already in the 6th century BC is confirmed by the legends about the tyrant Phalaris (560 BC), who built a fortification and widened the city's sphere of influence. At the beginning of the 5th century BC another tyrant, Theron, seized power and made Acragas the second most important city of Sicily; together with his son-in-law Gelon of Syracuse, he defeated the Carthaginians at the Himera river in 480 BC. The rich booty (including 25,000 prisoners of war) provided the means for an enormous building programme, the impressive remains of which can still be seen in the so-called "Valley of temples".

This term for what is a unique archaeological site is somewhat misleading, as most of the temples are standing on the hilltops along the town wall, so as to be seen clearly from the sea. Similarly, most of the modern names of the temples are not backed up by ancient evidence. The easternmost "Temple of Juno Lacinia" (a peripteros of 6×14 columns) was built in the middle of the 5th century BC; it measures 38.10×16.91 m, which is relatively small in comparison with other Sicilian temples. It was restored several times in the Roman era, but fell into decay afterwards and was rebuilt in 1785, from then on inspiring numerous paintings and engravings (e.g. by Caspar David Friedrich). The "Temple of Concordia" (named after a Roman inscription found nearby but unconnected with the building) was built about 430 BC. It is one of the best-preserved Greek temples anywhere, because in the 6th century AD it was transformed into a Christian church; most of the Christian refurbishments were removed during the restoration of 1785. Like most of the Classical temples in Sicily it is rather small (39.42×16.92 m) and has a peristyle of 6×13 columns. A third temple, dedicated to Heracles (this is confirmed by Cicero's description), lies further west along the town wall. Measuring 67×25 m, it is the largest and earliest Doric peripteral temple at Acragas, constructed at the beginning of the 5th century BC during Theron's reign, on the site of a previous temple, as excavations have shown. Its architecture shows the transition from Archaic to Classical times: the cella has a pronaos, inner sanctuary, and open opisthodomos, and for the first time the closed adytum that was in use in the region before is lacking. According to Cicero the temple contained a bronze cult statue by the Athenian sculptor Myron (5th century BC) and a painting of Heracles killing the snakes by the famous painter Zeuxis of Heraclea (end of the 5th century). North and west from this temple was the site of the ancient city with its agora (only slight traces remain) and the main gate; beyond the city wall are large necropoleis, and at some distance the ruins of a temple of Asclepius (middle of the 5th century BC).

To the west of the city gates lie the impressive ruins of the Temple of Olympian Zeus, a unique example in Greek architectural history. This Olympieion of gigantic size (56.30×113.50 m) was put up by the Carthaginians taken prisoner in 480 BC (though never finished). Unlike other temples, it had no freestanding peristyle, but closed walls, on the outward side of which there were 7×14 half-columns (about 20 m high), and between them colossal Atlas figures apparently weighed down by the upper part of the temple – an eloquent symbol of the defeat suffered by the Carthaginians. Inside was an immense hall of pillars consisting of three aisles, the middle of which was open to the sky; these peculiar architectural features were taken over from the Phoenician-Carthaginian world and in this way symbolically "imprisoned" within Greek architecture.

To the west of the Olympieion lies are sanctuary of the Chthonian gods, originally of the 6th century, but greatly

enlarged during the 5th; it contained several small buildings and numerous altars, the purposes of which are not yet entirely clear. Another two Doric temples were built next to it in the 5th century. Standing in the northwest corner is the so-called "Temple of the Dioscuri", today one of the landmarks of Acragas. It was heavily restored in the 19th century according to people's imagination of how it should look and by mixing remains of the 5th-century BC structure with those of its first restoration in Hellenistic times. Next to it is "Temple L", slightly larger (17.20×38.80 m) and today almost completely destroyed. On the western side of this precinct a large artificial lake (probably constructed under Theron) once formed the water reservoir of the city, but is now a steeply descending valley; beyond are the ruins of the Temple of Hephaestus, the last one built by the city (probably at the end of the 5th century) and unfinished.

After the fall of the tyrants in the early 460s BC, Acragas had a kind of democratic government, in which the city's most prominent son, the philosopher Empedocles, seems to have played a role. A massive Carthaginian offensive at the instigation of Segesta (from 409 BC onwards) brought an end to Acragas' might and prosperity; in 406/05 BC the cities of Selinus, Himera, and Acragas fell before this onslaught. In Acragas the revengeful Carthaginians totally destroyed the Temple of Olympian Zeus; furthermore, the city had to demolish its walls and to pay heavy reparations; it never again fully recovered from this blow. In the 4th century BC Timoleon led a new colony to the almost deserted place and Acragas enjoyed a brief revival under the tyranny of Phintias (286–280 BC). In the Punic wars, however, the city again suffered heavily: it was taken successively by the Romans (261) and the Carthaginians (255), and when it fell in 210 BC as the last Carthaginian outpost in Sicily, the whole population was enslaved by the Romans (who soon, however, brought in Sicani as colonists). In the 1st century BC the city regained some importance because of its agricultural production, and accordingly it suffered under Verres' plundering of Sicily (73–71 BC). In Byzantine times it dwindled to a small village, which after the Arab conquest of 827 grew again and – now being called Kerkent/Gergent – because the centre of the Arab population in Sicily. Today's Agrigento covers only the acropolis of the much larger Greek city.

BALBINA BÄBLER

See also **Sicily**

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ACROPOLIS OF ATHENS

The Acropolis is the heart of the ancient city of Athens. It was the focus of habitation from the earliest days of known settlement; its limestone rock, relatively sheer-sided, provided a place of refuge, and it has abundant springs of water round its lower slopes, particularly on the north side. In course of time it became the Late Bronze Age citadel, strengthened with massive fortification walls similar to those at Mycenae and Tiryns, with a palace-type structure within. Sections of the wall survive and are still visible: there is an important stretch at the west end of the rock, while more is concealed behind later walls. The principal entrance was at the west end. It was obliterated at the end of the 6th century BC, and there has been much discussion of the form it took, but it must have had an outer courtyard, edged to the south by a projecting bastion based on the natural rock, and a dog-leg passage through a gateway at the northeast. Of the palace no real traces survive, but it was presumably situated towards the summit of the rock, at its approximate centre. A curiosity is a well, sunk down the side of the rock on the north, within the line of the walls, which gave access to a good water supply even when the Acropolis was under siege. The eventual fate of the citadel at the end of the Late Bronze Age is uncertain. Obviously, it was prepared for attack: the Athenian tradition (which deserves respect) is that the attack on the city was repulsed, and that its history was unbroken.

Certainly the citadel continued to be the focus through the early years of the first millennium BC. Whether it continued as a place of residence for kings is uncertain, but changing circumstances meant that it become rather the chief place of a cult, dedicated to Athena, the protectress of the city (Polias). Her altar was at the summit of the rock, and probably by the end of the 8th century BC a simple temple was situated near to it. The fortification walls remained, and the rock was still defensible, the entrance being as yet unchanged from its Mycenaean form. A curious survival is found at the well. This had partly collapsed and was filled in after only a short period of use, but the opening and the first few steps down remained, and were used for an annual ritual in which young girls chosen as priestesses descended as far as they could with mysterious bundles that they deposited at the bottom, perhaps an unconscious reenactment of collecting water when the well had functioned.

Development of the site was centred on the provision of improved structures for the cult of Athena. The temple in front of the altar (generally referred to as the "Old Temple") was steadily improved. A substantial foundation wall for its north side was constructed in the 7th century BC, and is still visible. Eventually, perhaps at the end of the 7th or in the 6th century BC (the date is disputed), the temple became peripteral. It had a complex cella, double ended, the main room facing east to the altar, the west divided into two chambers side by side and with an antechamber. The whole building was surrounded by an outer Doric colonnade, behind which at each end inner rows of four columns stood in front of the porches (prostyle porches). The temple was decorated with sculpture, great pediment groups of heraldic felines, which were removed during later repairs and buried on the Acropolis, where they were found in the 19th century. They are now in the Acropolis Museum. The final rebuilding came towards the end of the 6th century BC, at

the end of the period in which Pisistratus, and afterwards his son Hippias, ruled Athens as autocrats (tyrants in the Greek sense), and supposedly had a palace on the Acropolis. In its final form the temple was given a new external limestone colonnade, with metope panels of Parian marble, and new Parian marble pediment groups in the latest style, a battle of gods and giants, which included a striding Athena killing a giant, much of which survives in the museum. This temple contained the venerable and original cult statue, which was a simple image carved from olive wood. For it, the maiden priestesses of Athena wove, once every four years, a new dress or *peplos*, which was brought to the statue in a sacred procession. By the 6th century BC this procession of the Panathenaic Festival, held once a year, with a particularly important one for the bringing of the *peplos* every fourth year, was the main event in Athens' religious calendar, and resulted in a gathering of the majority of the citizens.

Less clear are the other structures on the Acropolis at this time. There is evidence for another large temple to the south of the Old Temple, which by the end of the 6th century BC seems also to have had marble metopes; and fragments of the superstructure of several small buildings, often highly decorated, for which no foundations survive. What is certain, though, is that the religious usages, the shrines, and the sacred spots on the Acropolis rock established during the early centuries of the first millennium BC formed the basis of its continuing function throughout the Classical period.

Improvements began to be made at the end of the 6th and early in the 5th century BC. The Acropolis was last defended, in a minor skirmish, by the Spartan king Cleomenes I in an abortive intervention following the downfall of the tyrants; but it was then essentially demilitarized, the city being defended, presumably, by an outer circuit of walls. The old Mycenaean gateway was therefore torn down, though the forecourt, presumably an important point in the passage of the procession on to the rock, was retained. A new marble gateway with a colonnaded façade was eventually constructed. More importantly, after the victory of Marathon in 490 BC, the southern temple was pulled down and work started on a new, large, and magnificent Doric temple, in marble quarried on Mount Pentelicus, for which the first requirement was deep foundations, 20 courses of limestone, along its south side so that it could be extended in that direction. This work must have caused severe damage to the Mycenaean walls, which were here in a state of collapse.

The work stopped abruptly in the late 480s BC, when the threat of a new Persian invasion probably meant that all available funds were diverted to the building of warships. Athens was abandoned to the invader. The wooden cult statue, together with the women and children, was evacuated, and the walls of the Acropolis hastily patched up and a forlorn defence mounted, not perhaps in opposition to the policy of evacuation and naval defence but because the Athenians felt an obligation to defend the goddess's property. The Acropolis fell and was sacked. The innumerable statues set up as offerings to Athena (many on behalf of the priestesses when their period of office ended) were vandalized, and the partly built new temple, in its scaffolding, and hardly risen above platform level, was burned. The centre of resistance was probably at the gateway building, which would have been fiercely defended. This was severely damaged. The Old Temple was also burned.

When the Persians were driven out, the Athenians returned to tidy up the Acropolis, but not, as yet, to rebuild. The broken statues were gathered up, and, as the property of Athena, buried on the rock itself. The damaged outer colonnade of the Old Temple was dismantled, and part of its entablature built into new walls surrounding the Acropolis, near where the temple stood, on the north side, presumably as a war memorial. It is still visible there. The gateway building was repaired, using secondhand material. Some sort of simple shrine was built at the side of the Old Temple to house the wooden statue, returned from evacuation. The west cella of the Old Temple was patched, to serve perhaps as a repository for sacred objects rather than as a temple. And nothing else: either the resources of Athens were devoted rather to the prosecution of the continuing war against Persia, or the Athenians felt bound by an oath sworn by their army before the battle of Plataea, not to rebuild the vandalized buildings but to leave them in a ruined state as a memorial to the barbarians' sacrilege.

The revival finally got underway in 451 BC. Athens's prestige as a leader of the Greek world demanded splendid buildings on the Acropolis. Control of what was now in effect an empire provided funds, and the war against the Persians had reached some form of satisfactory conclusion. The rebuilding is essentially associated with Athens's greatest politician, Pericles, though he did not live to see it completed. Work began with the south temple, known as the Parthenon, the temple to Athena the virgin goddess (though her cult title was still Protectress of the City). Material left undamaged from the unfinished predecessor was used, including the massive south foundation, but the temple was slightly larger and certainly more magnificent, with eight rather than six columns forming its façade. It was built of Pentelic marble; the architects are named as Callicrates and Ictinus. The lavish sculptural decoration was designed by Phidias, though a whole gang of craftsmen would have been employed to execute the work. All the metopes are carved, and a tremendous continuous frieze ran across the inner porches and over the side walls of the cella. The pediments depicted the contest of Athena and Poseidon for the patronage of Athens, and the birth of Athena. The cult statue was a masterpiece in gold and ivory. The whole was completed in 436 BC.

The second building to be replaced was the gateway, the Propylaea, elaborated to include not only the gateway itself, with Doric porches, but also adjacent rooms, one, at least, to the northwest side being used for ritual feasting and decorated with paintings. Work started in 436 BC, to the design of Mnesicles, but, with war against Sparta looming, the plan was truncated, the inner rooms being abandoned. The structure was brought to a hurried completion just before the war broke out, in 431 BC. The abandoned rooms were never built, though indications of their position can still be seen.

Other building was resumed in the years of peace that began in 421 BC. A small temple of Victory (Nike) in the Ionic order was constructed on the bastion of the entrance. Shortly after, the replacement for the Old Temple was started on a new site to the north: the remains of the Old Temple were eventually removed, leaving only the foundations, which are still visible. The new building (popularly called the Erechtheum, after the legendary king Erechtheus, but more officially "The Temple in which is the Old Image") is built to a most unconventional plan. It has a

rectangular cella, on two levels, higher at the east, lower at the west, with an internal arrangement recalling the Old Temple. The eastern room housed the cult statue, and had a façade of six Ionic columns. There is another Ionic porch at the west end of the north side, Ionic columns on the west end (but with bases at the higher, eastern floor level), and on the south, a small projecting porch whose roof and entablature rest on the heads of six incongruous draped female statues, recalling the earlier statues of the priestesses, which were now buried nearby. This building is more than a temple, rather a decorative embellishment to a number of sacred spots and shrines. It gives access, through a subsidiary door in the north porch, to the shrine of Pandrosos and the sacred olive tree, the gift of Athena herself when she contested the patronage with Poseidon. In the north porch is Poseidon's effort, a pool of salt water, which appeared when he struck the Acropolis with his trident. Building the Erechtheum dragged on. Completion was delayed by a fire, and it was finished only in 406 BC, just before the Athenians were finally defeated by the Spartans.

After that, Athens no longer had the money for lavish buildings. Statues and other offerings were dedicated in abundance over the years, one of the earliest and certainly the largest being the colossal bronze statue of Athena the Champion by Phidias, which stood between the Propylaea and the temples. In the years after the death of Alexander the Great in 323 BC the successor king Demetrius Poliorcetes took up residence on the Acropolis as befitted a king (the stories of his orgies with prostitutes there may well be a calumny). In the 1st century BC the Erechtheum was again damaged by fire, but was carefully repaired, the new workmanship being of the same high standard as the original. The same craftsmen were employed, to judge from the details of the work, to build a small circular shrine dedicated to Rome and Augustus, placed in front of the Parthenon. After that little changed, though the Parthenon was severely damaged by fire in the 4th century AD and needed repair. The Acropolis had become a classic monument to Athens's days of glory; its fame, and the reputation of its buildings, was universal, even when other places were built more lavishly, and on a larger scale.

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ADOPTION

The major preoccupation of modern legislation on adoption is the welfare of the adopted child. In ancient Greek cities adoption was used mainly as a succession strategy for childless people. It also entailed duties of a religious character for the adopted person. Adoption has always had a public dimension, expressed either with a declaration in the marketplace or in a civic ceremony or, as in Hellenistic Egypt and Byzantium, with the written instrument or, as happens today, with a court decree.

The laws of Gortyn regulate in detail the process of adoption (called anpansis). Only male adults had the right to adopt. The adoption took place in public, in the agora. The declaration was followed by a ceremony in the political association (*hetaireia*) of the adopter and a sacrifice. The existence of natural children was not an impediment to adopting other children. Legal implications related mainly to inheritance. In particular, if the adopter died without natural heirs, then the adopted inherited his property as well as the obligation to perform religious rites. If the adopter had natural sons (or daughters), then the adopted received a portion equal to that of the natural heiresses. If the adopted died without natural children, the property he inherited was transferred to the next of kin (*epiballontes*) of the adopter. The adoption was cancelled in public and the adopter had to pay 10 staters to the judge, who in his turn gave this amount to the adopted.

In Athens adoption ((*eis*)*poiesis*) was geared towards the establishment of an heir to the adopter's property and the continuation of his *oikos* (family). Adoptions could be performed in one of three ways: during the lifetime of the adopter (*inter vivos*), by will (testamentary), and posthumously. Only men could adopt, and it was more likely that adult men rather than boys would be adopted. The adopted was able to inherit the property of the adopter like a natural son, without any previous legal formalities. Testamentary adoption was introduced by Solon at the beginning of the 6th century BC. It allowed a man without sons to adopt by testament an adult male, who would inherit from him. If there was a natural daughter, the adopted son would either marry her himself or provide her with a dowry equal to half of the paternal property. Elderly people were safeguarded from being manipulated by a law annulling an adoption if the adopter was very old or suffered from a mental or physical illness or was under the influence of drugs or was threatened. Finally and most curiously, a posthumous adoption could be performed by the family in the context of a mutually acceptable settlement.

As for other Greek cities we know that in Sparta an adoption took place in front of the kings while in Thebes there was a connection between adoption and grants of land. Adoptions are attested in a large number of inscriptions, especially from Rhodes.

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See also **Children; Family; Inheritance**

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ADULTERY

Hellenic culture has exhibited an almost obsessive concern with female chastity since the time of Homer; Helen's elopement with Paris led to the Trojan War, while Aegisthus' seduction of Clytemnestra destroyed her husband and endangered his house. One key to this concern is the legitimacy of children; a man can never be absolutely sure of his own paternity and that of his children, and even Telemachus, son of the super-chaste Penelope, admits that it is a wise child who knows his own father (*Odyssey*, 1. 215–16). Equally important is the impact of female unchastity on social relationships between men. These relationships are informed by concepts of honour, shame, and public reputation, ideas crucial to an understanding of the sexual mores not only of Greek antiquity but also of modern Hellenic society.

With regard to adultery (*moicheia*) in ancient Greece, it was the married or marriageable status of the woman involved that was the crucial point, not the status of the man. *Moicheia* comprised sex between any man, for whom marital status was irrelevant and marital fidelity unnecessary, and a female under a male citizen's protection (that is, the wife, daughter, sister, or mother of a citizen); for a man, married or unmarried, sex with a slave or a prostitute, male or female, did not constitute adultery.

Concerns about adultery in antiquity were informed by particular political and inheritance systems. In Classical Athens, where the male line was a critical factor in the transmission of property and citizen status, the avoidance of adulterine bastardy was accorded a corresponding importance; where patrilineal inheritance pertains, all property depends upon the chastity of women.

Extreme penalties were attached to adultery in Athens. A Draconian law of 621 BC allowed the summary execution of an adulterer caught in flagrante, while Plutarch attributes to Solon a law that allowed a father to sell into slavery an unmarried daughter caught with her seducer (*Solon*, 23. 2.), an unparalleled treatment of a free person in Attic law and an indication that the ruined girl no longer had any civic status to violate. These uncompromising penalties had fallen into disuse by the Classical period, but still adultery was criminalized as an act of hubris (disrespect, outrage) against both the individual (that is, the citizen in charge of the ruined woman) and the community. Adultery was regarded as an anti-democratic offence, an act of political as well as sexual subversion, and, accordingly, the social and legal consequences could be severe. Adultery could be used as a justification for homicide if the adulterer (*moichos*) was caught in the act, but the penalty attaching to the charge of adultery (*graphe moicheias*) was more usually a fine or public humiliation. However, there is no firm extant example of the use of the *graphe moicheias* and a prosecution for hubris (*graphe hubreos*) may have been preferred. There was no legal procedure available against the woman taken in adultery, but her punishment was severe also; she was compulsorily divorced and prohibited from participating in public sacrifice ([Demosthenes], 59. 87; Aeschines, 1. 183–84). However, the shame attaching to the cuckold and the compulsion to return both wife and dowry may have induced some husbands to keep the matter quiet and out of the public arena (Euripides, *Hippolytus*, 462–63; Aeschines, 1. 107), and there is evidence to suggest that others manipulated the situation to extort money from adulterers ([Demosthenes], 59. 64–70).

Despite the potential consequences, adultery provided an opportunity for erotic and romantic attachments in a society where arranged marriages were the norm. Many may have thought it a risk worth taking, and several texts imply such behaviour may not have been uncommon (for example, Aristotle claims that it is easy to commit adultery with the wife of a friend or neighbour: *Ethica Nichomachea*, 1137a5). Nevertheless, adultery was regarded as such a severe dereliction of social and civic duty that it could be described as a crime worse than rape (Lysias, 1. 32–33), perhaps because seduction involves the desire and complicity of the woman, and her deception may extend to passing off a lover's children as a husband's. Thus the adulterer and his offspring could take over the household and its legitimate line of descent.

For democratic Athens the civic consequences of adultery were incorporated in the political notion of hubris, but the personal and social dishonour that attaches to the man who cannot guard the women of his household or avenge their disgrace is a transhistorical concept for Hellenic culture which has persisted into 20th-century Greek society. A man's honour (*time*, a term used in both ancient and modern Greek), that is to say, the social recognition of his worth, is defined largely through the chastity of his women. If the chastity of a man's mother is compromised, his own legitimacy is at stake; if his wife is suspected of adultery, the implication is that his children may be bastards, while the idea that a man is not man enough to control his women is a slur on his masculinity (*andrismos*, a modern Greek term). Conversely, the adulterer, while condemned as socially disruptive and a threat to family stability, may enhance his reputation for virility through his behaviour. The cuckold, however, is a shamed, emasculated, and stigmatized figure. Women are expected to safeguard their own and their families' reputations by cultivating the appearance of sexual modesty (*dropi*, again a modern Greek term). In the 5th century BC Pericles proclaimed that a woman's greatest glory was not to be talked about (Thucydides, 2.45), and the public demonstration of female chastity is crucial still – women must not only be chaste, they must be seen to be chaste. Social reputation and gossip are particularly significant in face-to-face societies, not only in those of the ancient world such as Athens but in any close-knit Hellenic community in or outside Greece, and perhaps especially important in village life.

These common social attitudes towards adultery are supported by the Church's attempts to regulate sexual behaviour. Adultery has been marked out for especial censure throughout the Christian tradition, which condemns fornication, a notion that embraces any extramarital sex, either premarital or adulterous, and which threatens the Christian ideal of the "pure" marriage. Indeed, later canon law prescribed death for the adulterer, the strong proscription being based on Matthew 5: 32, which proclaimed that "whoever looks at a woman to lust after her commits adultery with her already in his heart", a pertinent illustration of the Christian principle that sexual fidelity is expected of husbands as well as wives, a marked contrast to the ancient world. However, it is the adultery of wives, not husbands, that provides the only valid grounds for divorce in

the Orthodox Church, at least technically, referring to the authority of Matthew 19: 9, which states that if a man remarries, having divorced his wife for any cause other than adultery, he himself commits adultery. For Christian Greeks in particular the marital status of men as well as women is relevant to the definition of adultery, but from antiquity to the present, in both social and religious terms, the unchastity of wives has been the greater concern.

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See also **Divorce; Family; Honour and Shame; Marriage**

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AEGAE

City in Macedonia

The Macedonian city of Aegae (more properly Aegeae) is situated in the northern foothills of the mountain range of Olympus, by the modern village of Vergina, overlooking the river Haliacmon and what is now a rich extent of flat cultivated plain but in antiquity was more likely, at best, marshland. The ancient road to northern Greece, followed by an Athenian army in 432 BC, ran from the coastal towns of Pydna and Methone westwards past Aegae before turning north at the next locality, Beroea. This area formed the Macedonian heartland, and from it successive Macedonian kings extended their rule west and north, until by the 5th century BC the whole region round and beyond the Axios (which flows down from the central Balkans) was part of the Macedonian state.

The city itself is still largely unexcavated. Traces of its fortifications and a city gate, enclosing an acropolis-type hill, can be made out, but archaeological work has concentrated on the areas below this, where important discoveries have been made. The existence of important remains was first noticed by the French archaeologists L. Heuzey and H. Daumet in the 1860s, though they did not identify the site as the ancient Aegae. Following an ambiguous passage in the Roman historian Justinus (7. 1. 7) it was believed that Aegae was situated at Edessa, where there were also ancient remains; but in an important paper given at the First International Symposion on Ancient Macedonia in 1967 N.G.L. Hammond pointed out that this was a misinterpretation, and that Aegae was located elsewhere: because of its archaeological remains, and other literary evidence, particularly Theophrastus, *De Ventis*, 27, he suggested Vergina. Subsequent discoveries there have more than confirmed this.

Outside the town, on the flat ground, is an extensive cemetery of pit graves covered with low tumuli dating from the early Iron Age (the turn of the 2nd and 1st millennia BC) into the Classical period. The contents of the earlier tombs show connections with regions further to the north, and they are therefore to be identified as the graves of the original Macedonian settlers. There is no good archaeological evidence for the adjacent settlement at this time, and it hardly merits being called a city. Its importance is demonstrated rather by the large number of graves. Aegae is thus the traditional Macedonian centre, and remained so, particularly in terms of its religious function, even when a new city was created at Pella. It should have been a place of residence for the Macedonian kings, but although the 5th-century king Perdiccas was encountered there by the Athenian army in 432 BC, there is no trace of an actual royal residence until the end of the 4th century BC when a substantial palace was built, measuring overall 104.5 by 88.5 m. This consists of a central courtyard 44.5 m square with a peristyle of 16 Doric columns on each side. To the east and north are open verandahs (a most unusual feature for Greek residences, which are invariably closed and inward looking) commanding extensive views over the Haliacmon. Most of its rooms are equipped as formal dining rooms, appropriately graded to accommodate the different ranks of the Macedonian court; the palace seems to have been designed primarily for ceremonial or religious functions rather than as a conventional administrative building.

Below the palace is the theatre, which had wooden seats arranged on the earth slopes, apart from the first row which was limestone. It was here that the great Philip II was murdered in 336 BC, watching a procession in celebration of the marriage of his daughter Cleopatra. Nearby is a small temple, dedicated to the goddess Eucleia by Philip's mother Eurydice. But the most convincing evidence that Vergina is the ancient Aegae is the Great Tumulus, excavated by Manolis Andronikos. Aegae was known from literature (Plutarch, *Pyrrhus*, 26. 6–7) to have been the burial place of the Macedonian kings. Hammond suggested that a built vaulted tomb, of the type categorized as Macedonian and excavated by K. Rhomaios in the 1930s, decorated in the same form of the Ionic order as the monument of Philip at Olympia, might be where he was buried after his assassination. Andronikos's excavation of the largest of the tumuli uncovered more "Macedonian" tombs, including one that was unrobbed, containing the remains of the cremated dead (a man and a woman) in chests of gold together with a vast array of other objects, gold, silver, ivory, and an iron breastplate similar to that worn by Philip's son Alexander in the mosaic which depicts him at the battle of Issus. The remains of the dead man were not completely reduced to ashes, and enough of the bone structure remained to indicate that he was of Philip's age when he died, and that, like Philip, he had been blinded in one eye by an arrow which had entered the skull from above; in all there is ample evidence to confirm the identity of the great Macedonian king and the locality at Vergina as the city of Aegae.

The subsequent history of Aegae is uncertain, and there is no secure archaeological evidence later than the Hellenistic palace. During the troubled years which followed the death in 297 BC of king Cassander (who may have been responsible for the palace) the royal tombs were plundered by Gallic mercenary soldiers employed by the king of Epirus, Pyrrhus, during his invasion of Macedonia in 288 BC. Somehow, Philip's tomb escaped, and it was after this that Antigonus Gonatas, when he secured the kingship of Macedon for himself in 277/76 BC, heaped over it and another unplundered royal tomb the great mound which preserved it intact.

After the final Roman conquest of Macedon following the battle of Pydna in 167 BC, Aegae disappears from history. It is not one of the capitals of the four separate regions into which the Romans divided the former kingdom. Too closely associated with the traditions of the Macedonian people and monarchy, it had no place in the Roman system of things. If not deliberately destroyed, it was defortified and, probably, allowed to dwindle away, its place as the leading city of this area being taken over by Beroea.

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AEGINA

Island in the Saronic gulf

The island of Aegina lies centrally in the Saronic gulf, some 20 km southwest of Piraeus and the same distance from the Argolid peninsula; it has an area of 83 sq km. The location of the island so close to Attica resulted in a greater involvement with the events and developments of mainland Greece throughout its history than any other island of the Aegean. It has always benefited from a fine natural harbour on the west coast, beside which the town of Aegina grew up and flourished. Its climate is more sheltered than most of the Aegean islands, and its land produces major crops of pistachio nuts as well as olive oil, grapes, almonds, and figs.

Colonized in the 3rd millennium BC, by the 2nd millennium BC Aegina had already become an important trading post. During the 10th century BC (according to Herodotus) the island was colonized by Dorians from Epidaurus, having previously undergone Mycenaean occupation; since then it has played at various points an active, and sometimes vital, part in Greek history. The Aeginetan navy was a force of paramount importance from the 7th to the 5th centuries BC, and played a major role in the defeat of the Persians at Salamis (480 BC). Also flourishing during these centuries were the skills of its potters and bronze-founders, and modern products of the former are still sold widely today. But the outstanding survival from this period is the temple dedicated to Aphaea, built in the late 6th or early 5th century BC on a hill in the northeast of the island and looking out over the Saronic gulf towards Attica. Although considerably damaged, it still retains 24 of its 32 original columns, and of particular interest are surviving traces of pigmentation on the floors of the pronaos and cella; originally the columns, of local limestone, were stuccoed and then coloured. Figures from the pediments, carved in Parian marble by the famous Aeginetan sculptor Onatas, were taken to Munich after their discovery in 1811. The individuality of Onatas' artistic style is suggested by the comment of Pausanias (5. 25) that his figures, "even though they are in the Aeginetan style, I would not assess as inferior to those of the Attic school of sculptors". Another sculptor from Aegina called Smilis, the son of Euclides must have been one of the more famous sculptors of his day, since the cult image of Hera in the huge temple on Samos was, according to Pausanias, made by him (7. 4). Later, the inhabitants of Aegina were expelled at the start of the Peloponnesian War, but were able to return by 400 BC. For the rest of the pre-Christian period the history of the island was closely linked to that of Athens.

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AEOLIANS

Ancient ethnic group

Of all the major ethnic groups of ancient Greece the Aeolians are the most indistinct. In modern scholarship the term is generally applied to the populations of Thessaly, Boeotia, the eastern Aegean islands of Lesbos and Tenedos, and the northwestern littoral of Asia Minor north of the Hermus valley – largely on the basis of the structural similarities between the dialects of these areas (although the Boeotian dialect displays several "Northwest Greek" characteristics while the Aeolic dialects of the eastern Aegean are marked by "Ionicizing" features almost certainly due to regular contact with neighbouring Ionian settlements).

In antiquity, however, the term "Aeolians" was applied more indiscriminately. The 1st-century BC geographer Strabo (8. 1. 2) says not only that all the populations north of the Corinthian isthmus (with the exception of the Athenians, Megarians, and Dorians "around Parnassus") were Aeolian, but that the Dorians of northern Greece were themselves originally Aeolians whose speech and customs eventually became distinct as a result of their isolation from their neighbours. He claims further that Aeolians had inhabited the Peloponnese prior to the arrival of the Dorians but that most had assimilated with the Dorian invaders save for the Achaeans, the Eleans, and the Arcadians. It should nevertheless be noted that the West Greek dialects of Achaea and Elis and the Arcado-Cypriot dialect of Arcadia appear to demonstrate little or no similarity with the Aeolic dialect group. The lack of coincidence between claims of ethnic origin and the linguistic situation marks a striking contrast with the case of the Ionians and Dorians, and it has been suggested that the etymology of the term "Aeolians" indicates a group of mixed origins.

According to tradition, Thessaly had originally been called Aeolis (Herodotus, 7. 176. 4), though the 5th-century BC historian Thucydides (3. 102. 5) believed that ancient Aeolis was the area surrounding the Aetolian towns of Calydon and Pleuron. Sixty years after the Trojan War, the Aeolian Boeoti who had formerly been settling Thessaly were expelled and occupied Boeotia to the south (Thucydides, 1. 12. 3; Pausanias, 10. 8. 4). Immediately after settling Boeotia, some of the Boeoti accompanied Penthilus, son of Orestes, in his expedition to colonize the island of Lesbos and Aeolis in Asia Minor (Thucydides, 7. 57. 5; Strabo, 9. 2. 5). There were, however, variant versions – the 2nd-century AD traveller Pausanias (3. 2. 1) says that Penthilus colonized Lesbos and his grandson Gras settled Aeolis, but Strabo (13. 1. 3) reports that it was Gras who settled Lesbos, while the city of Cyme on the coast of Asia Minor was founded by two other descendants of Agamemnon, Kleues and Malaus – and it is generally believed that the tradition of the Aeolian migration was a relatively late compilation that is unlikely to predate the 5th century BC. In particular, the idea that the Aeolian Boeotians were led by the ethnically unrelated Penthilus parallels the tradition of the Dorians returning to the Peloponnese under the leadership of the descendants of Heracles and was almost certainly coined to justify the claims of the Penthilidai, the ruling family in the Lesbian city of Mytilene (Aristotle, *Politics*, 5. 10).

In fact, it is more than likely that a sense of Aeolian identity first emerged among the cities that were founded in the eastern Aegean *c.* 1000 BC. At the beginning of the 7th century BC Hesiod (*Works and Days, 636*) described how his father had left "Aeolian Cyme" for Boeotia; a century later the poetess Sappho evokes "the Muse in Aeolian Eresus" (a city on Lesbos), while a tribe named "Aeolis" is attested in the Lesbian city of Methymna. It is telling that the only Aeolian city which participated in the foundation of the 6th-century Hellenion sanctuary at Naucratis was the Lesbian city of Mytilene (Herodotus, 2. 178. 2.). The principal vehicle for the expression of this identity was without doubt the league of 12 cities in Asia Minor which is described in the 5th century BC by Herodotus (1. 149) and which was originally thought to include Smyrna, Cyme, Larissa, Neon Teichos, Temnos, Cilla, Notion, Aegiroessa, Pitane, Aegaeae, Myrina, and Gryneia. Herodotus goes on to report how Smyrna was captured by the Colophonians and transferred to the Ionian Dodecapolis. It has been suggested that the league should predate the 8th century BC since from this time the archaeological evidence at Old Smyrna appears to display no qualitative differences from other Ionian settlements. On the other hand, there is no evidence that ethnic affiliations in ancient Greece were necessarily expressed through distinctive repertoires of material culture, and it is far more likely that the league emerged in the course of the archaic period (possibly the early 6th century) as a direct response to the foundation of the Ionian Dodecapolis. On the basis of perceived ties with central Greece (perhaps historical as well as invented), a sense of Aeolian affiliation may have spread from the eastern Aegean to the regions of Boeotia and Thessaly.

Towards the end of the 6th century BC the compiler of the pseudo-Hesiodic *Catalogue of Women* attempted to systematize and harmonize the variant genealogical traditions of different Greek cities so as to anchor local mythologies within a broader panhellenic context. Besides accounting for relationships between various local heroes, the *Catalogue* articulated in genealogical form the relationship between various Greek ethnic groups by deriving filiation of their eponymous ancestors (Aeolus, Dorus, Ion, Achaeus) from the original ancestor of the Greeks, Hellen (Hesiod, fr. 9, 10a). But whereas Dorus, Ion, and Achaeus are relatively faceless figures whose only function would appear to be to express relationships between Greek population groups, Aeolus stands at the head of a developed genealogical tradition that includes a host of heroes from various localities throughout Greece. It is highly likely that the Aeolus who acts as the ethnic eponym for the Aeolians has here been assimilated with an older homonymous figure and that Strabo's extensive application of the term "Aeolians" stems from the widespread distribution of local heroes belonging to this Aeolid lineage.

From the end of the 5th century BC Aeolian identity ceases to operate in any meaningful way. It is possible that it was its indiscriminate application that militated against any solid criteria for collective consciousness, but the political situation on both sides of the Aegean sea also played a role. In the east the Aeolian cities – like their Ionian neighbours – succumbed to the successive domination of Lydia, Persia, the Athenian empire,

Persia again, the Seleucids, the Attalids, and finally Rome, though even prior to their incorporation within the Lydian empire they had, with the exception of the cities on Lesbos and Tenedos, accepted the leadership of the Ionians (Herodotus, 1. 151. 3). On the Greek mainland, Thessaly became increasingly riven by internal disputes while the Boeotian city of Thebes concentrated on promoting a pan-Boeotian federation over which it claimed hegemony; but any sentiment of ethnic affinity between the two regions was counteracted by their siding with opposing alliances during the Peloponnesian War and by the construction of an ethnicizing rhetoric between Dorians and Ionians in which the Aeolians found no voice.

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See also **Dialects; Hellenes**

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AESCHINES *c.*390–*c.*322 BC

Orator

Aeschines came from an Athenian family that was impoverished by the Peloponnesian War. He was forced to earn a living, and his various early occupations included working as the secretary to the assembly and as a tragic actor. These, and military service for which he was decorated, would stand him in good stead in his political career, which took off after the destruction of Olynthus by Philip II of Macedon in 348 BC. Aeschines was sent to Arcadia as an ambassador to promote Eubulus' proposed Greek congress, which would discuss resistance to Philip, but in the event in 346 BC he was one of the negotiators of the short-lived Peace of Philocrates. One of his fellow ambassadors was the staunchly anti-Macedonian Demosthenes, and the two men, who had fallen out when serving on the council in 347/46 BC, became sworn enemies. Aeschines may have been duped by Philip, who appeared friendly towards Athens, but Demosthenes accused him of accepting bribes. Demosthenes soon received more ammunition for this charge, as Philip invaded Phocis; Aeschines was sent to plead for fair treatment of the defeated Phocians, and Philip held a feast attended by Aeschines and his fellow envoys. On Aeschines' return to Athens Demosthenes began proceedings against him for treason (346/45 BC), but acted through the notorious rake Timarchus. Aeschines successfully countered with his *Against Timarchus*, in which he prosecuted Timarchus for addressing the assembly when forbidden to do so because of his immorality, and it was not until 343 BC that the mood in Athens was right for Demosthenes to bring the case himself. Aeschines delivered his *On the False Embassy* speech and was narrowly acquitted, but his credibility was undermined. Nevertheless, in 339 BC he was sent as an Athenian representative to the Amphictionic Council at Delphi; but at a time when Greek unity against the threat of Philip was essential, Aeschines managed to stir up a Sacred War against Amphissa. As a result Philip had the excuse he needed to intervene in central Greece, and Athens and Thebes were compelled to oppose him at the disastrous battle of Chaeronea. With his background of friendly relations with Philip and hostility towards Demosthenes, Aeschines was sent on the embassy to negotiate peace terms, after which he largely withdrew from the political arena.

Two opportunities subsequently presented themselves for Aeschines to return to the limelight and attack Demosthenes. In 336 BC Ctesiphon proposed that Demosthenes should be crowned for his services to Athens in the theatre at the Great Dionysia, and this gave Aeschines the chance to prosecute Ctesiphon for making an illegal proposal. Philip's murder, however, meant that the trial was delayed, and it was not until 330 BC, after the failure of Agis III's revolt and with Athens firmly under Macedonian control, that the second occasion presented itself. Aeschines delivered his *Against Ctesiphon*, in which he raised probably valid technical reasons for the illegality of Ctesiphon's proposal, but also attempted to show that Demosthenes' career made him unworthy of such an honour. Demosthenes replied with his superlative *On the Crown* speech, and Aeschines failed to secure one-fifth of the votes. He was thus fined heavily, but it was his humiliation that led him to retire to Rhodes, where he probably spent the rest of his life teaching rhetoric and giving public declamations.

Aeschines was not a professional speech writer, and there is no firm evidence that he studied rhetoric, even if he did become a teacher. His speeches are primarily important for their subject matter, but as with his political career, estimation of Aeschines' literary merits has suffered unduly in ancient and modern times by comparison with Demosthenes. Aeschines writes clear, vivid narrative, sometimes with lengthy sentences but regularly in shorter periods, and with an avoidance of hiatus that is evidence for careful composition. He employs ordinary Attic vocabulary, interspersed with poetic and rare words; and his actor's training leads him to frequent quotations of poetry, which are often long and largely irrelevant. He is prone to using exaggerated language (one of his favourite words is *deinos*, "terrible"), with accumulations of synonyms and appeals to the gods, and he has a range of vivid metaphors at his disposal. Aeschines has an innate wit, which is particularly noticeable when he is attacking Demosthenes, and these attacks can, in the fashion of the time, become extremely abusive. But generally Aeschines' Greek has a dignified tone, as befits a dignified man who deplored the use of extravagant gestures while speaking.

Only the three speeches mentioned above survive, and this was the case also in the Roman period, when Caecilius of Caleacte pronounced a fourth speech concerning Delos spurious. All three are forensic, though delivered in connection

with wider public issues. Aeschines, however, tends to avoid these issues and to concentrate on the legalities of the case, but at the same time his talent lies in narrative rather than argument. Hence in *On the Embassy*, Aeschines' best speech, he does not attempt to explain his policies, but offers an amusing and lucid narrative of Demosthenes' totally losing his nerve in the presence of Philip on the first embassy sent to discuss the Peace of Philocrates. When it came to *Against Ctesiphon* Aeschines could not avoid discussing the wider issues, but he concentrates on the results of Demosthenes' policy, not the policy itself. Demosthenes' response was to emphasize the patriotism that underlay his opposition to Philip, and Aeschines later could not help but admire the speech that ruined him.

If Demosthenes' victory in the *Crown* trial undermined Aeschines' subsequent political and literary reputation, some of his merits were, nevertheless, praised by the ancient literary critics, in particular his powerful voice and delivery. The activities of his last years in Rhodes were recognized in the 3rd century AD by the sophist Philostratus of Lemnos, who included Aeschines in his *Lives of the Sophists* and credited him with being the first in a new generation of declamatory sophists, the founder of the so-called "Second Sophistic", which flourished in the 1st and 2nd centuries AD. Aeschines, like other members of the canon of ten Attic orators that had been firmly established by the 2nd century AD, served as a model of Classical Attic oratory, and the sophistic tradition continued in the schools of rhetoric through late antiquity and the Byzantine period down to the Renaissance. The speeches of the *Crown* trial continued to be the focus of attention, and if this was to the greater glory of Demosthenes, it helped to keep Aeschines in the forefront of study. The sophist Himerius, who taught rhetoric in Constantinople (AD 343–52) and Athens (AD 352–61), wrote a speech in the person of Demosthenes against Aeschines; George Chrysokokkes, the Byzantine schoolmaster, copied the manuscripts of Aeschines in the period 1420–28 for his Italian patron Aurispa; and the Cretan Demetrios Doukas assisted in the preparation of the first printed edition of Aldus Manutius in 1513. One final indicator of the continuing study of Aeschines is the collection of scholia to Demosthenes and Aeschines in the monastery of St John on Patmos.

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See also **Rhetoric**

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AESCHYLUS *c.*525–456 BC

Tragedian

Aeschylus saw Athens victorious over the Persians in 490 BC and again in 480–479 BC. His tomb at Gela tells us that he fought at Marathon, but nothing about his drama. Supposedly he came from a distinguished family. He was invited by Hieron I to visit Syracuse in Sicily, and he wrote his *Women of Aetna* on the occasion of Hieron's founding of the city of Aetna. His plays were esteemed for their inspirational and educational value. In Aristophanes' *Frogs* (405 BC) the god Dionysus brings Aeschylus back from the dead so that the Athenians can enjoy good drama once more; Aeschylus claims that his *Seven Against Thebes* is "full of Ares" and that whoever sees it is anxious to become a warrior (*Frogs*, 1021–22).

Seven of Aeschylus' plays survive: *Persians* (472 BC), *Seven against Thebes* (467 BC), *Suppliant Women* (*c.*466 BC), the *Oresteia* trilogy comprising *Agamemnon*, *Choephoroe*, and *Eumenides* (458 BC), and possibly *Prometheus Bound*, though authorship of this play has been disputed. He is said to have written some 80 plays, and he won victories with about 13 of them. Legend has it that, after beginning to compete in 499 BC, he won his first victory in 484 BC and that he was triumphant on every subsequent occasion that he competed. Fragments exist of many of the missing tragedies, rarely extensive, except in a few cases (*Myrmidones*, *Niobe*, *Prometheus Unbound*). His satyr plays were highly regarded and the more substantial of his fragments are in fact from these (*Netfishers*, and *Theoroi*, also known as *Spectators at the Isthmian Games*).

Aeschylus generally wrote his plays in the form of a thematically connected trilogy, and the only trilogy from any of the ancient tragic playwrights that survives is his. This form allows the development of a theme, as in the *Oresteia*, with its admonition that the perpetrators of crime will be punished. This is called a violent grace, accorded by the gods to man to teach him to be wise, to learn through suffering (*Agamemnon*, 176–83). A family curse shows man's dependence on fate for generation after generation, and yet the responsibility for wrongdoing remains his. The lesson is an important one, and Aeschylus charts the transition from personal blood feud and murderous vengeance to the public law court. This trilogy was written two years after the democratic reforms limited the Council of the Areopagus to murder trials. Aeschylus shows respect for the Areopagus, but also seems to espouse the development towards democracy.

Aeschylus' plays include many exchanges between a single actor and the chorus. As much as one half of a play can be choral, and his choruses are particularly dramatic. It is easy to imagine the Persians appearing in their lavish costumes, and the demonic arrival of the Erinyes, or Furies, whose appearance we are told caused women to miscarry. Aristotle tells us that Aeschylus introduced a second actor and his later extant plays show more dialogue between two actors, and, after Sophocles introduced the third actor, sometimes three.

Of the three playwrights from 5th-century BC Athens whose works survive, Aeschylus' language is perhaps the most poetic, with his abstract usage, invented and rare words coupled with bold metaphors. He is certainly the most difficult to translate. He often takes an image and carries it throughout the play, or

trilogy, as, for instance, in the *Oresteia* with the related images of net, hunt, blood, fertility, sacrifice, and war: public pursuits that lead to private disaster.

Alone of the three great tragedians, Aeschylus deals with a historical subject, the *Persians*, less than a decade after their defeat. He showed sympathy for the enemy, a useful quality for rising statesmen in the new democracy. In this work he also extolled the merits of democracy by comparison with the Persians, who were governed by a tyrant.

When Aeschylus died, a state decree was issued allowing his plays to be entered at the tragic festivals in competition with living playwrights. Aristophanes' *Frogs* shows us that he was still held in high repute after his death, since he is shown victorious over Euripides. Soon, however, Euripides became more popular. There are few quotations from Aeschylus in writings of the 4th century BC, and Aristotle says little about him. Around 330 BC the Athenian politician Lycurgus prescribed that copies of the texts of the plays should be deposited in the official archives, and that future performances should conform to these texts. The purpose was to safeguard the plays from adaptation and interpolation by actors and producers, of a kind to which they had already become vulnerable. These copies were lent to the Egyptian king, Ptolemy Euergetes I, and would have passed into the library at Alexandria, to form the basis of the critical edition made by the librarian Aristophanes of Byzantium (c.257–180 BC). Aristophanes divided the lyrics (previously written as continuous prose) into metrical cola. He also added brief introductory comments, probably making use of Aristotle's lost *Didaskaliai* (production records). Part of these comments survive in the *hypotheses* (plot summaries) that were prefixed to the plays by later scholars in the Roman period. The composition of commentaries (or scholia) on the plays was begun in the Hellenistic period (by scholars such as Aristarchus of Samothrace, *c.*217–145 BC, and Didymus, ?80–10 BC). Further scholia were added in the Byzantine period.

Greek plays were popular in Rome. Quintus Ennius (238–169 BC) wrote a play called *Eumenides* that used characters from the *Oresteia*. Lucius Accius (170–?86 BC), in addition to plays based on characters from the *Oresteia*, also wrote *Persian Women*, *Prometheus*, and *Myrmidones*. For these Roman plays we have only the titles or a few fragments. In the imperial period Seneca (AD ?1–65) reworked the Greek tragedies in his ten extant plays. His *Agamemnon* and *Thyestes* are both derived in part from Aeschylus' *Oresteia*.

The selection of the seven plays by Aeschylus that we possess was probably made in the 2nd or 3rd century AD, and scholia were included for school use. After parchment gradually replaced papyrus (around the 4th century AD) the unselected plays gradually passed out of use. After the Athenian Academy was closed in 529, the classical texts disappeared from sight for several centuries and did not reemerge until the revival of learning in the middle Byzantine period, when they were copied from the uncial into the new minuscule script. Among the scholars who wrote commentaries and handled the texts of the plays the most important are Thomas Magister (late 13th century), Manuel Moschopoulos (*fl.*1300), and Demetrios Triklinios (early 14th century). Triklinios brought a new metrical awareness to the amendment of the text, in particular the lyrics. The plays that were most preferred by the Byzantines were *Persians*, *Prometheus*, and *Seven against Thebes*. Giovanni Aurispa brought the "Medicean" manuscript, written about 1000, from Constantinople to Italy around 1453. This included the seven plays that survive; it is our only source for *Suppliant Women* and *Choephoroe*. The *Agamemnon* is more fully preserved in two manuscripts from the 14th century and an autograph edition by Triklinios.

Texts of Aeschylus were available in Europe from the early 16th century (six of his plays were published in 1518) but he was not a favourite at this time. For the next 400 years interest in these texts was restricted to western Europe. Opera was founded at the end of the 16th century as a revival of Greek tragedy; in the 17th century Corneille and Racine both reworked Greek tragedy. Further interest followed in the 18th century with Goethe, Lessing, and Schiller, followed by Nietzsche and Kleist in the 19th century, and other reworkings throughout Europe and America.

In 1927 Eva Sikelianos revived performances of Greek tragedy at Delphi, beginning with *Prometheus Bound*. *Suppliant Women* was performed there in 1930. This tradition still continues at Delphi. Tadashi Suzuki took his *Clytemnestra* there, after it was performed in Toga, Japan, in 1983. That same year he did *The Tragedy* (*The Fall of the House of Atreus*) in Tokyo. The National Theatre in Greece regularly performs the ancient plays at Epidaurus, the odeum of Herodes Atticus in Athens, and elsewhere. Tony Harrison's and Peter Hall's *Oresteia* was performed in London in 1981 and at Epidaurus in 1982, the first imported production in that theatre.

In 1954 Dimitris Rondiris, a pupil of Reinhardt, established two festivals to revive ancient Greek drama on a yearly basis, one at Epidaurus, the other at the Herodes Atticus theatre in Athens. In 1980 Karolos Koun directed a fine production of the *Oresteia* in which Melina Mercouri starred as Clytemnestra. Earlier, in 1965, he had done an outstanding production of the *Persians*, which was also performed in London. In 2000, Katie Mitchell directed Ted Hughes's translation of the *Oresteia* in London. Spiro Evangelatos produced an *Oresteia* in 1990 with music by Theodorakis. This play has been performed in Greece since 1903, *Prometheus Bound* since 1917, and *Seven against Thebes* since 1925. *Prometheus Bound* was performed again at Delphi in 1995, ably directed by Theodoros Terzopoulos (he had previously done the *Persians* in 1990). Karolos Koun mounted a splendid production in 1975, and Giannis Tsarouchis a particularly artistic version in 1982. *The Persians* has also been popular and has been regularly performed in Greece since 1889, with an outstanding production by Terzopoulos in 1990 which emphasized the cruel suffering that revolutionary and idealistic defiance can entail. Yearly festivals that revive ancient Greek drama in addition to the ones listed above have occurred at Syracuse in Sicily since 1914 and at Delphi in Greece since 1981.

There have also been several films made of plays by Aeschylus, such as *Prometheus in Chains* (Greece, 1927) by Costas and Demetrios Gaziadis, and *Prometheus Second Person Singular* (Greece, 1975) by Costas Ferris, *Les Perses* (France, 1961) by Jean Prat, and *Notes for an African Oresteia* (Italy, 1970) by Pier Paolo Pasolini.

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See also **Tragedy**

Biography

Born at Eleusis *c.*525 BC, Aeschylus is the father of Greek tragedy. Seven plays survive. His drama is characterized by large issues and the splendour of his choruses. His trilogies showed divine justice acting over generations. He utilized spectacle to advantage, coupling it with equally spectacular poetic words. His plays have a particular appeal for contemporary audiences. He died at Gela in Sicily in 456 BC.

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AESOP

Legendary fabulist

Although Aesop's very existence has sometimes been considered to be a fable, the many ancient and Byzantine statements about him may contain a historical nucleus, though this is hard to determine. The earliest reference to him is a brief passage from Herodotus (2. 134), which contains the following information: Aesop was a slave of one Iadmon from Samos; he was a fellow slave of Rhodopis, a *hetaira* (courtesan) living in the time of the Pharaoh Amasis (570–525 BC); and urged by an oracle, the Delphians paid compensation to atone for Aesop's death, which was received by Iadmon's homonymous grandson.

These data can be compared and combined with other testimonies. The indications of the place of Aesop's origin and activity vary; some locate him on Samos, others in Lydia, but most in either Thrace or Phrygia. Strikingly enough, all of these are peripheral regions of the ancient Greek world. This may tentatively be connected with the provenance of the fable genre from abroad (Mesopotamia). However this may be, Maximos Planudes' derivation of "Aesop" from "Aethiopian" is at any rate etymologically incorrect.

Instead of Iadmon, Aristotle (fr. 573 Rose) names one Xanthos as Aesop's master. More important than the latter's identity is Aesop's alleged social status: the emperor Julian (*Orations*, 7. 3) plausibly observes that Aesop, as a slave, could not speak out but had subtly to disguise his counsels in fables.

If Aesop really existed, he probably belonged to the 6th century BC. Eusebius of Caesarea even dates his death to 564 BC precisely. Herodotus implicitly connects him with Sappho, since he reports that it was her brother who redeemed Rhodopis. An inscription of the 1st century AD (*Inscriptiones Graecae*, 14. 1297) makes Aesop a contemporary of Pisistratus, whereas Plutarch (in his *Symposium*) has him converse not only with the equally legendary Seven Sages but also with Solon, and states that Croesus, the last king of Lydia, sent him as an envoy to Delphi.

This mission was allegedly to be his death, as is already implied by the passage from Herodotus discussed above. Aristophanes (*Wasps*, 1446f.) refers to a story in which Aesop was accused by the Delphians of the theft of a bowl dedicated to Apollo. Later testimonies explain that Aesop incurred the anger of the Delphians because he exposed their habit of greedily misappropriating gifts to the oracle; whereupon they falsely accused him of sacrilege, and put him to death by stoning and/or throwing him from the rocks (*Oxyrhynchus Papyrus* 1800, 2nd century AD; Plutarch; Lucian, Himerius, 4th century AD). He was, however, avenged by Apollo. This legend, which may reflect the ritual expulsion of a scapegoat, must have been well known by as early as the 5th century BC, as indicated by the very brevity of Aristophanes' and Herodotus' allusions. The story's popularity is also indicated by the application of the proverb ''Aesop's blood'' to persons involved in crimes difficult to expiate (Zenobius, 1. 47, 2nd century AD; Apostolius, 1. 73, 15th century).

Aristophanes (*Wasps*, 1448) adds that Aesop told the Delphians a fable about a dung beetle. Again, the conciseness of the passage shows that the playwright presupposed that the audience would be acquainted with the full story. An ancient commentator explains that Aesop (vainly) tried to prevent his execution by telling the Delphians a story about a tiny scarab who took a terrible revenge on the mighty eagle.

From the 5th century BC it became customary to connect fables with the name of Aesop. This was done in various ways: either Aesop was presented as the narrator of a fable on some occasion of his life, or he figured as a fable character, or the fable was simply labelled as ''Aesop's'' or ''Aesopic''. All these ways of ascribing fables to Aesop occur for the first time in Aristophanes' *Wasps*. By the end of the 5th century BC Aesop's fables must already have enjoyed great popularity, as is clear from passages from Aristophanes and Plato. The former (*Birds*, 471) considers unfamiliarity with Aesop's fables to be a serious lack of cultivation, whereas the latter (*Phaedo*, 60) reports that they were versified by Socrates (who was unjustly condemned to death like Aesop). It is a matter of dispute whether or not these passages imply the circulation of a textbook with Aesop's fables in Classical Athens.

The popularity of Aesop's fables is also evident from archaeology. It is generally assumed that a red-figure *kylix* (drinking cup, *c.*450 BC; now in the Vatican Museum) depicting a hunchback speaking to a fox represents the fabulist in conversation with his favourite fable character. Later testimonies refer to statues of Aesop by Lysippus and Aristodemus and describe an allegorical painting of Aesop and his fables (Tatian, 2nd century AD; Philostratus' *Imagines*, *c.* AD 200; Agathias, 6th century AD). The fabulist was honoured also by literary monuments: apart from various biographical notes (in the *Suda* lexicon and prologues of fable collections) and a fictionalized *Life*, which will be discussed below, we have one fragment of an *Aesop* staged by the comedian Alexis (4th century BC; extant in Athenaeus, 10. 431).

The ascription of fables to Aesop soon became a standard practice, which lasted throughout antiquity. Fables somehow connected with Aesop's name occur in the works of writers from the Classical (Democritus, Aristotle), Hellenistic (Callimachus), and imperial periods of Greek literature (e.g. Galen, Dio of Prusa, Dionysius of Halicarnassus, Plutarch, Lucian, Diogenes Laertius, Libanius, Themistius), as well as in early Christian Greek (St Irenaeus, St Basil the Great).

The first to compose a fable collection (Demetrius of Phalerum, *c.*300 BC) also used Aesop's name as a kind of generic label. This was done by other ancient fabulists (Babrius and Phaedrus, his Latin *collega proximus*) as well, and has become customary ever since, as is clear from the habit of Byzantine authors of quoting from ''Aesop's fables'' (Michael Psellos, John Tzetzes, Eustathios of Thessalonica, Nikephoros Gregoras). Hence it has naturally, but mistakenly, been believed by some that the ancient so-called Aesopic fable collections, which are extant in many Byzantine manuscripts, were by the genre's founding father himself. This myth was, however, definitively unmasked by Sir Richard Bentley (1699), who mainly on internal linguistic evidence convincingly proved that the prose fables cannot have been composed before the Christian era; their author must remain anonymous.

Aesop's renown (according to some perhaps rivalling that of Homer) may be especially based upon the fables ascribed to him, but throughout antiquity and the Byzantine period his name is also connected with apophthegms and proverbs (in John Georgides, *c.*10th century; *codex Mosquensis*, 239, 14th century). His fame was further enhanced by the anonymous *Life of Aesop*, a biographical romance from the imperial Roman period that creatively combines traditional stories about the legendary fabulist with heterogeneous elements derived from various other sources, notably anecdotes about the Seven Sages and the Assyrian book of Ahiqar. Aesop is portrayed as a typical anti-hero, physically and socially inferior but mentally the master of his superiors, and as the champion of popular wisdom, problem-solving, and fable-telling. The text's structure is tripartite; the setting shifts from Samos via the Near East to Delphi. Part 1 relates how Aesop, dumb from birth and enslaved, is granted first the power of speech by the goddess Isis and then freedom by his master Xanthos because, respectively, of his faithfulness and cleverness, and how he reconciles his fellow citizens with their powerful enemy, King Croesus of Lydia. In part 2 Aesop, as a counsellor of King Lycurgus of Babylon, manages to escape a plot set up against him by his adoptive son Ainos (''Fable'') and to win an enigmatic battle for his master against the Egyptian pharaoh Nectanebo. Part 3 is about Aesop's tragic end in Delphi (see above). He is, however, with divine approval, avenged by allied Graeco-Babylonian forces.

Of this highly original and at times scabrous text three different versions are extant, viz. the ancient *G* and *W*, and the Byzantine *Pl*, named respectively after the place where the manuscript was originally kept (Grottaferrata; also containing fables of Babrius), after its first editor (Westermann; Braunschweig, 1845), and after Maximos Planudes, who made a somewhat abbreviated version *ad usum delphini* which was to become an early printing bestseller, translated into Latin, German, French, English, Dutch, Spanish, and other European languages. Modern Greek versions are the anonymous *Life of Aesop the Phrygian* (Venice, 1783) and Andreas Moustoxidis's *Life of Aesop* (Corfu, 1857).

In antiquity and in Byzantine times it was told (Photios and the *Suda* lexicon) that Aesop rose from the dead and was

reincarnated more than once. Even if one does not believe in metempsychosis, the story of Aesop redivivus aptly symbolizes the eternal resurrection of the creation of Hellas's famous fabulist.

GERT-JAN VAN DIJK

See also **Fable**

Biography

The eponymous father of Greek fable. Little is known of his life, and indeed his very existence is in doubt. If he existed, it was probably in the 6th century BC. He was by tradition a slave, perhaps on Samos. Fables continued to be ascribed to Aesop throughout antiquity and have been popular ever since.

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AESTHETICS

Although the word "aesthetics" is itself derived from the Greek word *aisthanomai* ("I perceive"), it was not coined until 1753, by the German philosopher Alexander Gottlieb Baumgarten. Since then it has gradually come to embrace philosophies of both art and beauty (whether natural or created). This is not to say that the ancients did not have a tradition of what we understand by aesthetics, i.e. a philosophy concerned with the essence and perception of beauty and ugliness.

Apart from the evidence that is implied in their creative works, we are able to form some idea of the views on art and beauty held by the Greeks from at least four types of writing: literary criticism, art criticism, philosophy, and rhetoric. One general idea that emerges from this evidence is that to the Greeks art was a representation (*mimesis*) of life. This is evident from the description of Achilles' shield in *Iliad* 18 where the artist's depiction is praised for its faithfulness to life. This was true not only of the visual arts and works of literature, but even of instrumental music. However, what the Greek thinkers understood by *mimesis* was something much broader than mere copying. It could encompass a wide range of modes of depiction and symbolism that ranged from imitative realism to imaginative idealism and embraced different accounts of the artists' relations to their creations, circling around the polarities of nature and craft, inspiration and technique. Accordingly, ancient attitudes to the representative arts include many distinctive configurations of emphasis. As Aristotle says in the 26th chapter of his *Poetics*, the artist could represent men as they are, as they ought to be, or as they are thought to be.

According to Xenophon, Socrates regarded the beautiful as coincident with the good, while both of them are resolvable into the useful. We call something beautiful when it serves some rational end, be it human gratification or human security. He seems to have emphasized the power of a beautiful object to further the more necessary ends of life rather than the immediate gratification it afforded to perception and contemplation. For him, beauty was a relative thing. Unlike Plato, he did not recognize a "beauty itself" existing absolutely without any relation to a percipient mind. The *Memorabilia* (3. 10) records a conversation with the sculptor Parrhesius in which Socrates introduces two qualifications to the idea of representation: the sculptor can combine into one statue features that in real life belong to many people; and the artist represents not only physical features but also the soul.

The earliest aesthetic theory of any scope is that of Plato. According to him, reality consisted of forms or archetypes that were themselves imperceptible to the senses but were perceptible to the soul in its purest essence. But they were the patterns on which all objects of sense perception were modelled. Thus phenomena imitate the forms or participate in them. From the objects of sense perception the philosopher reasons to the pure forms of which they are mere imitations. But the artist merely copies the objects of sense experience without possessing a knowledge of their forms. What he produces is, thus, an imitation of an imitation. Because he did not possess the philosopher's knowledge of reality, the artist had no claim to be the teacher of men. Plato also believed that certain types of artistic production, such as those that portrayed the character and actions of base people, were harmful to the moral and emotional

integrity of their audiences. Even certain musical modes could induce laziness or incite people to intemperate actions. Accordingly, in formulating an ideal state, Plato, in the *Republic*, recommends rigorous censorship (or even expulsion) of the existing breed of poets and painters in favour of an ideal race of artist-philosophers whose creations should provide moral and political training.

Although Plato was inclined to the conception of an absolute beauty that took its place within his scheme of self-existing forms or ideas, it is not easy to determine exactly what he meant by beauty. Various definitions are rejected in his dialogues by the Platonic Socrates as being inadequate. The only notion of a common element in beautiful objects that we come across in his dialogues is proportion, harmony, or unity among their parts. According to the *Symposium*, true beauty is not something that one can find as an attribute in this or that beautiful thing. For beautiful things, although they partake of beauty, are not themselves ''beauty itself''. Eros or love causes aspiration towards the pure idea of beauty that Plato also identifies with goodness and truth. According to the *Phaedo*, the soul's knowledge of beauty itself results from recollection of its prenatal existence.

In several of his works Aristotle attempts to defend the claims of representative art as the basis of moral education, the origin of catharsis, and the instrument of character formation. He attempts to develop certain principles of beauty and art by scientific analysis. For Aristotle, just as for Plato, aesthetics was inseparable from morality and politics. In his *Politics* (8. 5) he dwells on the power of art to influence human character, and hence the social order. In the *Metaphysics* he tries to make a distinction between the good and the beautiful: the good is always found in action, whereas beauty may exist in motionless things as well. The good may also be called beautiful under certain circumstances, although essentially they are two different things. Beauty is also different from what is fitting, and is above the useful and the necessary. The pleasure it provides is of the purest kind. The universal elements of beauty are order, symmetry, and definiteness or determinateness (*Metaphysics*) as well as a certain magnitude (*Poetics*); an object should not be so large as to prevent a synoptic view of the whole, or so small as to prevent a clear perception of the articulation of the parts.

The more mystical writings of Plato, the *Timaeus* in particular, suggest a different approach to aesthetics based on the Pythagorean theory of the cosmos or ordered universe. This exerted a decisive influence on the Neoplatonists. Among them Plotinus (born *c.*AD 205) accorded far greater significance to art than did Plato. The essence of his philosophy is the desire to escape from the material world. According to him, *nous* or objective reason, which is self-moving, invests form on inanimate matter, thereby turning it into a *logos* or notion whose beauty lay in its form. Objects that have not been acted upon by reason are formless, and therefore ugly. The creative reason is absolute beauty, which Plotinus calls the more-than-beautiful. Beauty manifests itself in three stages: the highest is human reason; next comes the human soul, which is less perfect because of its links with the material body; lowest of all are the ''real'' objects. In other words, he explains the universe by a hierarchy rising from matter to soul, soul to reason, and reason to God, the final abstraction, without form or matter, i.e. pure existence. Only the spiritual world contemplated by reason is real, the phenomenal world being a creation of the soul and, hence, a thing without real existence, while matter is only a receptacle for forms imposed on it by the soul. Unlike Aristotle, he believed that a single thing indivisible into parts might be beautiful through its unity and simplicity. He accorded a high place to the beauty of colours in which material darkness is overpowered by light and warmth. According to him, art reveals the form of an object more clearly than ordinary experience does, and it raises the soul to contemplation of the universal. When the artist contemplates notions as models of his creations, such creations may attain to greater beauty than the products of nature. For Plotinus, the highest moments of life were mystical, and by this he meant that in the world of forms the soul was united with the divine or the ''one''. Since one loses oneself in contemplating an aesthetic object, aesthetic experience comes closest to mystical experience.

The influence of Plato is also manifest in the rhetorical treatise known as Longinus' *On the Sublime* (1st century AD). According to this author, ''sublimity consists in a certain excellence and distinction in expression'' and ''it is from this source alone that the greatest poets and historians have acquired their preeminence and won for themselves an eternity of fame.'' According to him, the sublime not merely persuades but transports the audience out of themselves. It is thus a mystic experience, an ecstasy, which is why its effect is different from that of all merely technical skills. In the 7th chapter he says: ''for by some innate power the true sublime uplifts our souls; we are filled with a proud exaltation and a sense of vaunting joy, just as though we had ourselves produced what we had heard.'' For him, the sublimity of a work is proved by its ability to stand repeated hearings and its unanimous recognition or universal appeal. In chapter 9 he describes the sublime as the echo of a noble mind. The sources of sublimity are: (1) the ability to form grand conceptions; (2) the stimulus of powerful and inspired emotions; (3) figures of speech and thought; (4) diction; and (5) composition. Although he makes several references to the visual arts, his prime concern is literature.

Among the Greeks, examples of art criticism are found in literary works, mostly from the later periods, which contain descriptions of works of art. One such work is Pausanias' *Guide to Greece* (2nd century AD); another is the *Eikones* by one of the Philostrati of Lemnos who appear to have lived in the 2nd–3rd centuries AD. The latter consists of two sets of descriptions in prose of pictures that the author professes to have seen.

There was a strong tendency among the ancient Greeks to connect both art and beauty to more general considerations of human needs and values, so that their aesthetics, so far from being isolated, was involved with the psycho-sociological aspects of culture. In considering questions concerning the origin, subject-matter, form, style, and effect of the arts, several Greek writers adopted a comparative approach. The elder Simonides described poetry as vocal painting and painting as silent poetry. Aristotle, in his *Poetics*, also makes frequent references to the visual arts; and so do the later authors of rhetorical treatises, even though their analogies are often misleading.

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AETOLIA

Region in central Greece

Aetolia is a region in north central Greece whose southern border is the coastline along the Gulf of Corinth. Its western border is formed by the Acheloüs river, which separates modern-day Greece from Albania and in Classical antiquity marked the division between Aetolia and Acarnania. In the 5th century BC an uneven line running from the area just west of Thermopylae in the north to Naupactus on the Corinthian Gulf in the south formed Aetolia's eastern boundary; its northern border abutted the kingdoms of Macedonia and Thrace. At present Aetolia and Acarnania, as the conglomerate Aitolakarnania, comprise the most westerly nome of central Greece; this nome lies between the Gulf of Patras and Epirus. Throughout the centuries the territorial boundaries of Aetolia have dramatically expanded or contracted in accordance with the ebb and flow of the Aetolians' political fortunes.

From the 1st-century-BC geographer Strabo we learn that in antiquity Aetolia fell into two divisions: Old Aetolia and New or Acquired (*Epiktetos*) Aetolia. The area between the Acheloüs and Euenus rivers is known as Old Aetolia. Its most striking geographical features are the complex series of lagoons of the Aetolian plains and Lake Trichonis. Old Aetolia included the city of Calydon, of great mythological significance as the scene of the tragic story of Meleager, Atalanta, and the Calydonian boar hunt. Moreover, Aetolian cities gained undying fame in the catalogue of ships in Book 2 of Homer's *Iliad* (lines 638–44); the poet reports that Thoas, son of Andraimon, led an Aetolian contingent of 40 black ships in the expedition against Troy. New Aetolia extended from the Euenus river eastwards to the land of the Ozolian Locrians. This region did not have the sort of prestige which Greek mythology bestowed upon Old Aetolia; indeed, the 5th-century BC Athenian historian Thucydides (3. 94) remarks that its rude inhabitants spoke a nearly unintelligible form of Greek and ate raw flesh.

Aetolia's period of greatest power and prosperity fell between the years 338 BC, when the victory of Philip II of Macedon over a coalition of Greek city states led by Athens and Thebes changed for ever the configurations of inter-state power relations in Greece, and 189 BC, when Rome imposed a harsh settlement upon the Aetolians in the aftermath of the Roman victory over Aetolia and its ally the Seleucid king Antiochus III. The Aetolian Confederacy (or *koinon*) held regular representative meetings in which federal magistrates were elected, had a pan-Aetolian sanctuary at Thermon, and conducted a common foreign policy.

Sometime around 300 BC Aetolia gained control of the venerable sanctuary of Apollo at Delphi. Aetolia's territorial extent in this period may be calculated on the basis of the number of votes which the Aetolians controlled in the Delphic Amphictionic Council. In antiquity Aetolia's claim to fame lay in the defence of the sanctuary in 279 BC against a Gallic attack. Although it is clear that the Phocians also played a significant role in the repulse of this Gallic incursion, the Aetolians claimed sole responsibility. Some 30 years after the invasion they reorganized the Delphic festival of thanksgiving on a grander scale and represented themselves as the heroic defenders of Hellenism against a barbarian menace. This propaganda apparently was effective: the 2nd-century AD traveller Pausanias (*Description of Greece*, 10. 19. 5) states that the Gallic attack of 279 BC was the gravest peril in all of Greek history. The historian Polybius (*Histories*, 2. 35. 7), writing in the mid-2nd century BC, reluctantly pairs the event with the great 5th-century BC Persian invasions of Greece (although he refuses to name the Aetolians as the authors of the sanctuary's preservation). Throughout its ancient history Aetolia had an uneasy relationship with the Macedonian monarchy, alternately being its ally and its enemy. In the so-called Social War (220–217 BC) the Macedonian king Philip V stunned the confederation by striking deep into its heart with his sack of the federal sanctuary at Thermon.

Aetolia is a rugged land. The lack of geographical and climatic amenities enjoyed by other parts of Greece may give some help towards understanding the Aetolian Confederacy of the 3rd and 2nd centuries BC. The Aetolian economy was based on the annual conduct of war and raiding expeditions; in some cases Aetolia granted other Greek states immunity from its marauding expeditions through treaties of inviolability, or *asylia*. The Aetolian Confederacy was essentially a nation of corsairs and mercenaries. We have already noted the negative assessment of Thucydides. The Aetolians' propaganda centred on their exploits at Delphi in 279 BC must in part be viewed as an attempt to counteract their negative international reputation. In the 2nd century BC, Polybius, as a citizen of the archenemy of Aetolia, the Achaean Confederacy, delivered in his *Histories* the most scathing indictment of Aetolia in the literary tradition (see especially the opening of book 4).

Aetolia struck up an alliance with Rome in 211 BC against Macedonia. This act hardly enhanced Aetolia's international image, as many Greeks at this time viewed the Romans as uncouth barbarians. At the conclusion of the Second Macedonian War (200–196 BC) Romano-Aetolian relations broke down as a result of a disagreement over the terms of the treaty. Aetolia was deprived of cities which it believed rightfully belonged to it; and the disgruntled Aetolians called in the Syrian king Antiochus III against Rome, which led to the aforementioned defeat and harsh settlement of 189 BC. Aetolia would never regain its former international position.

CRAIGE CHAMPION

See also **Acarnania**

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AFTERLIFE

Greek beliefs in the afterlife were complex and contradictory, even no doubt within the same individual. We can only speculate about those that were current in the prehistoric period. Marine motifs painted on the surfaces of terracotta Minoan coffins known as *larnakes* have sometimes been fancifully interpreted as evidence that the Minoans believed in an afterlife that lay across the water. The fact that the Mycenaeans were prepared to clear away previous burials in so-called tholos (or beehive) tombs to make way for a new interment has been taken as evidence by some archaeologists that the Mycenaean corpse was believed to be sentient as long as the flesh remained on the bones. Conversely it has been suggested that the plentiful use of gold in Mycenaean royal burials may have been intended to preserve the body from physical decay, judged to be a necessary precondition for a healthy afterlife. The belief that the dead have need of their possessions in the world to come might account for the ritual slaughtering of animals at the time of burial – a practice for which there is evidence in protogeometric as well as Mycenaean times. Myths such as that of the sacrifice of Polyxena at the grave of Achilles have been taken to suggest knowledge of human sacrifice, conceivably practised with a similar object in mind.

It is only when we have written evidence to supplement the archaeological record, however, that we can begin to identify with some degree of certainty the beliefs about the afterlife that underlay funerary ritual. Undoubtedly the most prevalent, and one, moreover, that has persisted into modern times, has to do with Hades, the subterranean kingdom where the bloodless dead lead a cheerless and monotonous existence punctuated only by the appearance of new arrivals. In the earliest surviving description of the region as provided by Homer in book 11 of the *Odyssey*, every human being with one exception ultimately enters this kingdom, irrespective of their qualities. That exception is Menelaus, who is destined to live out eternity in a favoured region known as Elysium, which is situated at the ends of the earth (4. 561ff.). It is not his virtue that has earned Menelaus his privileged status, however, but merely the fact that he happens to be Zeus' son-in-law. Homeric Hades is therefore a place of equal misery for all and contains no trace of a system of punishments and rewards that are meted out to ordinary mortals, though a few who have sinned on a truly grand scale, such as Ixion, Sisyphus, and Tartarus, are condemned to suffer never-ending torment. The rest of the dead tend to confine themselves to sententious moralizing about their past. Greek tragedy occasionally intimates that kings preserve the same status in Hades as they did in life (e.g. Aeschylus, *Persians*, 691). Judging from depictions of the handshake motif in funerary art, a popular belief in Classical Athens was that upon arrival in the underworld a reunion took place between the recently deceased and their previously dead relatives.

Though belief in Hades probably remained dominant throughout antiquity, from the 6th century BC onwards it had to compete with more nebulous philosophical ideas about the afterlife. Orphism and Pythagoreanism, for instance, taught that the soul or *psyche* experiences incarceration in the body in this world and is released from its earthly constraints into its own element at the moment of death. Precisely what the *psyche* signified to these sects is unclear but it was without doubt a more personalized entity than a Homeric shade. The Pythagoreans also taught that the soul migrated to another body at the moment of death, since it is on a journey that will ideally lead it to a state of moral perfection. Attaining that state of perfection might therefore be expected to take several incarnations. The belief in transmigration (*metempsychosis*) seems to have been confined to philosophical circles. It is advanced in a number of Plato's dialogues, including the *Phaedrus*.

Mystery religions, of which the most important were the Eleusinian mysteries, so named because they were celebrated at Eleusis in Attica, held out the promise of a better afterlife in the case of those who underwent initation. So far as we know, however, the promise was not conditional upon a person's conduct in this life – a circumstance that outraged Diogenes the Cynic, who poured scorn on a belief system that maintained that ethical considerations play no part in determining a person's destiny in the afterlife. The only group that was excluded from initiation were murderers, but this may have been more on ritualistic than moral grounds since the shedding of human blood caused pollution.

From elsewhere, however, there is evidence to suggest that some Greeks at least came to believe that those guilty of serious crimes would he punished in the afterlife. A notable example is Pausanias' description of a painting by Polygnotus that depicted, among other things, a man who had mistreated his father being throttled by him in the underworld (10. 28. 5). In apparent reference to Orphic belief Aristophanes in *Frogs* (145ff.) comically suggests that "anyone who has stolen from a child, thrashed his mother, struck his father or sworn falsely" will be consigned to "everlasting mud". There are also a few references in tragedy to a post-mortem judgement (e.g. Aeschylus, *Suppliants*, 230f. and *Eumenides*, 269ff.; Euripides, *Helen*, 1013ff.). Though belief in a dualistic afterlife never became universal, it made significant inroads into the Homeric picture of an undifferentiated afterlife.

At no period did the Greeks trouble themselves to formulate a clear image of the rewards that lie ahead in the afterlife for

those who manage to escape the fate reserved for the rest of mankind. Very likely they merely envisioned a world whose delights in general terms were identical to the best that is on offer in this one. Such seems to have been the idea behind Elysium, otherwise known as the Isles of the Blest, described by Homer as a place where life is easiest for men and where a gentle breeze always blows. A series of Classical grave reliefs depict the dead reclining, enjoying the pleasures of the symposium. Likewise Plato mocks the Pythagoreans for envisaging an afterlife consisting of "eternal drunkenness" (*Republic*, 2. 363c). The *Homeric Hymn to Demeter*, which incorporates the founding charter of the Eleusinian mysteries, merely states in vague terms that initiates will become "prosperous" (*olbioi*, lines 480–82). From the 5th century BC onwards a small minority of funerary inscriptions also refer to a celestial as opposed to a subterranean afterlife for the *psyche* located in the *aither*, i.e. the upper air. There is no suggestion that the dead retain any individuality or even consciousness once they have merged with this element, however. A few dead, notably Castor and Pollux, were transformed into stars, but again it is uncertain what existence they enjoyed as such.

Despite all their attempts to locate the dead above or below the earth, the Greeks found it difficult to envisage their dead as wholly incorporeal. In Classical Athens there is evidence of increasing concern with the physical well-being of the dead, deemed to be dependent upon offerings of food and drink that were placed on the tomb by their relatives, irrespective of whether the dead had been inhumed or cremated. Little can be deduced about eschatological beliefs from the method of disposing of the dead.

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See also **Burial Practices; Death; Hades**

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AGESILAUS II *c.*444–359 BC

King of Sparta

Agesilaus was born to a life of controversy. The younger son of king Archidamus II, he was not expected to ascend the throne. He also suffered from a lame leg, a birth defect for which he tried to compensate throughout his life. He received the ordinary rigorous training of the Spartiates, which inculcated in him a sense of duty to superiors and the law. Extremely ambitious, he harboured an arrogance that he unsuccessfully disguised under a diaphanous cloak of humility. His elder brother, king Agis II, died in 400 BC, which ignited an ugly contest for the throne. Agis' son Leotychides was accused of being illegitimate and, despite his handicap, Agesilaus advanced himself as Archidamus' true son. The furore was fuelled by Diopeithes, an expounder of oracles, who declared that the divine will rejected a lame king, for he would bring "unexpected afflictions and whirling man-killing wars". The result of this unsavoury contest was the recognition of Agesilaus as king.

Agesilaus owed his first important military command to his lover Lysander, the famous war hero. Agesilaus' first assignment was to free the Greek cities of Asia Minor from Persian rule. Accompanied by Lysander, he sailed in 396 BC. His first landfall, at Aulis in Boeotia, was in imitation of Agamemnon, who had sacrificed Iphigeneia there before continuing to Troy. When Agesilaus offered a sacrifice, contrary to native custom, Boeotian officials abruptly disrupted the ceremony. Agesilaus left for Asia Minor with feelings of foreboding and a fierce anger against Thebes.

Agesilaus accomplished comparatively little against the Persians. In 395 BC he unsuccessfully attacked Sardis, the principal city of Lydia, but in all he engaged in desultory operations that inflicted little damage on the Persians. He obviously had no strategic concept of how to defeat such a powerful enemy over such a large expanse of terrain. In any case, events in Greece put an end to his ambitious and unrealistic dream of conquering Persia. Thebes, Athens, Argos, and Corinth banded together to crush Sparta, and in response Sparta promptly recalled Agesilaus to meet the challenge. The Corinthian War (395–386 BC), as the ensuing conflict is known, severely strained Agesilaus' abilities and Sparta's resources.

Hurrying back to Greece, Agesilaus marched overland through the north until he reached Coronea in Boeotia. In August 394 BC he encountered a Theban and allied army, and in a furious battle made a tactical blunder that cost him dearly: he received several wounds, and his troops suffered many casualties. Despite this tactical and strategic defeat, in 391 BC he led a successful invasion of Argos and Corinth, in which he inflicted serious damage. In the following year he campaigned very effectively in Perachora immediately to the north of Corinth but again without decisive results. He fared better in 389 BC, when he defended Sparta's Achaean allies from their neighbour Acarnania.

Victory for Sparta, however, came from diplomacy not from warfare. In 386 BC the Spartan ambassador Antalcidas negotiated the King's Peace that ended the war between Persia and the Greeks. Yet those hoping that this treaty would bring peace were promptly disappointed.

As in 386 BC, Sparta resorted to diplomacy to win the peace. In 371 BC Sparta, Athens, and other Greeks renewed the common peace, but Agesilaus expelled Thebes from it. The irony of this diplomatic victory is that it led to military defeat on the field of Leuctra, which resulted in the downfall of Sparta. In the Peloponnese pent-up anger quickly vented itself: in 370 BC Elis, Arcadia, and Argos allied with Thebes to cripple Sparta as the surest guarantee of their mutual safety. Epaminondas led them into Laconia, where they spread devastation and liberated helots and others. He next led them to the liberation of Messenia, which broke the back of the Spartan economy while raising an implacable foe on Sparta's doorstep. Agesilaus rallied his countrymen through the ordeal, but could not undo the harm for which he was solely responsible. In the following years Sparta declined and Agesilaus languished. His last encounter with Epaminondas was at the battle of Mantinea in 362 BC, a

Theban victory but in which the Theban leader was killed. Agesilaus spent his declining years as a mercenary in Egypt, dying in 359 BC on his way back to Sparta.

For all his military fame, Agesilaus never won a major battle. His diplomatic policies almost uniformly led to unnecessary disaster. When he assumed the throne in 400 BC he reigned over a Sparta supreme in Greece; at his death, owing largely to his failures, Sparta was beaten and isolated. His fame survived him, but his mark on history was scarcely stellar. Diopeithes' interpretation of the warning against a lame king had come true.

JOHN BUCKLER

See also **Sparta**

Biography

Born *c.*444 BC the younger son of king Archidamus II of Sparta, Agesilaus was not brought up to be king. But on the death of his elder brother, King Agis II, in 400 BC, Agis' son was accused of being illegitimate and Agesilaus successfully negotiated for the throne. He had some military success against the Persians but never won a major battle and presided over Spartan decline. He died in Cyrenaica in 359 BC.

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AGORA OF ATHENS

Marketplace of ancient Athens

The Agora was located to the northwest of the Acropolis. It was traversed by the Panathenaic Way and formed a large open square serving various public functions. Laid out early in the 6th century BC, it remained the focal point for Athenian commerce, culture, and politics for many centuries. It originally consisted of a square space defined by boundary stones (*horoi*). The first public buildings were erected on the west side and seem to have served the needs of the Council. When Pisistratus was in power at Athens, in the second half of the 6th century BC (566–510 BC), limited building activity took place in the Agora, which expanded gradually to the east and south. A large house-like building preceded the Tholos at the southwest corner of the Agora, but its use has not been defined with certainty; it was probably built as the palace of the tyrants and later served the domestic needs of the Council. A fountain house, supplied by a terracotta aqueduct, appeared at the southeast corner of the square, while an altar of the Twelve Gods was established at the north. The street of the Panathenaia passed diagonally through the square, as it ran from the Dipylon gate to the Acropolis. Although the line of the road goes back to the Iron Age, when it led to the cemetery of Kerameikos, it was incorporated in the Agora during the 6th century BC.

The constitutional reforms of Cleisthenes at the end of the 6th century BC (508/07 BC) were followed by considerable building activity in the Agora. Several buildings accommodated the new government, including the Heliaea (the principal law court) along the south side of the square, and the Bouleuterion (Senate House), and the Royal Stoa (or Stoa Basileios) – headquarters of the king archon, where the laws were also put on public display – along the west side. Furthermore, shrines to the Mother of Gods, Zeus, and Apollo were built along the west side of the Agora. The Assembly of the citizens (*Ekklesia*), which used to meet in the Agora, found a new gathering place on the Pnyx Hill. The Persian attack in 480/79 BC left all these buildings in ruins, as was also the case on the Acropolis. Repair works, however, took place at the Bouleuterion, the Heliaea, and the Royal Stoa, which were shortly in use again.

After the Persian invasions and during Cimon's time, the architectural development of the Agora was remarkable. Cimon is also reported to have adorned the area with trees. From 479 BC to the middle of the 5th century BC, besides the reconstruction of the buildings destroyed by the Persians, the Painted (or Poikile) Stoa, the Tholos – a round building, functioning as the headquarters of the *prytaneis* ("standing committtee") of the Boule, where they also dined – the Herms, and the aqueduct to the Academy were built. The Painted Stoa is among the most famous buildings in the Athenian Agora. It was first known as Peisianaktios, after the man responsible for its construction, and was decorated with painted wooden panels by the outstanding painters of Athens, such as Polygnotus, Micon, and Panaenus.

The Periclean building programme in the middle of the 5th century BC did not include extensive activity in the Agora, because there was a shift of attention to the Acropolis and Attica. The work was therefore concentrated on repairs to sanctuaries and shrines, such as the altar of the Twelve Gods, the altar of Aphrodite, and the Crossroads Enclosure. Among the first new buildings were the temple of Hephaestus, which was not completed before the Peace of Nicias (421–415 BC), and the Strategeion, the headquarters of the generals.

Although the Peloponnesian War had affected the Periclean building programme, leaving several monuments unfinished, a burst of building activity occurred in the Agora during the last 30 years of the 5th century BC, indicating an interest in civic structures. The new Bouleuterion was built immediately to the west of the old one; the Stoa of Zeus Eleutherios was a religious building and an informal meeting place of the Athenians; the South Stoa I, a public market building, also housed the officials responsible for the administration of the commercial life of Athens as well as the official weights, measures, and standards; the Mint was the public foundry that produced not only bronze coins but other material in bronze required by the state, such as weights and measures. These constructions were erected with limestone and brick, demonstrating the extent of Athenian resources even in times of war. The old Bouleuterion, known as the Metroon, did not go out of use, but housed the official archives of the city and the cult of Rhea, the Mother of Gods. The construction of the South Stoa and the Mint on the south side of the Agora made this area the official commercial centre, just as the west served administrative needs.

Besides the public buildings, excavations have brought to light many establishments for private industry and commerce, especially on the southwest of the Agora, such as the pottery and metalwork workshops, as well as sculptors' and marble workers' ateliers and shoemakers' shops. These workshops were in most cases attached to the private dwellings of the artisans and tradesmen. Moreover, wine shops and tavernas were found close to the east side of the Agora.

Construction works in the Agora were abandoned during the first half of the 4th century BC, because Athens was recovering from the Peloponnesian War. In the second half of the 4th century BC, when the city's economy improved, partly because of renewed activity at the Laurium mines, a new fountain house was built at the southwest corner, as well as a water clock, and the monument of the Eponymous Heroes was located in front of the Bouleuterion, the latter used for the posting of civic announcements. On the west side of the Agora was the shrine of Zeus Phratrios and Athena Phratria and the temple of Apollo Patroos. The square peristyle at the northeast corner of the Agora housed the law courts, as indicated by the finds of scattered bronze discs, which are identified as public ballots. Associated with the law courts is the state prison, recognized in a building located outside the southwest corner of the square, which dates from the middle of the 5th century BC.

The prosperity of Athens in the 2nd century BC and the benefactions of the eastern monarchs revived building activity in the Agora. The erection of the Middle Stoa, the East Building, and the South Stoa II created a complex, the South Square, which cut off the south half of the square from the north, changing the plan of the Agora. The most likely suggestion about the function of the complex is that it was a commercial centre, the two stoas serving as market buildings. Moreover, a two-storey colonnade, the gift of Attalus II, king of Pergamum (159–138 BC), housed stores and closed the east side of the main square. Also built at this time was the new Metroon on the west side of the square. The remodelling of the 2nd century BC gave a different appearance to the Agora, which it retained for the rest of antiquity. Its area was 50,000 square metres; all sides were now enclosed by colonnades; and the open central square became smaller, divided into two unequal halves by the Middle Stoa.

In 88 BC the Athenians sided with King Mithridates of Pontus in his revolt against Rome. For this reason Athens was besieged in 86 BC by Sulla, and several monuments of the Agora were damaged. Among them the Tholos, the southwest fountain house, the Heliaea, South Stoa II, and the East Building seem to have been destroyed; the Tholos was the only monument soon to be repaired. The south side of the Agora was later reoccupied by private industrial activities, such as iron foundries, potters' kilns, and marble-workers' workshops. In the time of Hadrian this area was cleaned up and restored to public use.

An important development in the Agora during Roman times was the construction of a marketplace to the east, in the form of a large open courtyard surrounded by colonnades. The construction, which started with Julius Caesar and was completed by Augustus around 11–9 BC, affected the plan of the old Agora. Thus it was no longer thought necessary to maintain the central open square, which was soon covered by the Odeum of Agrippa, housing musical performances, and the temple of Ares; the latter was a 5th-century building standing somewhere in Attica which was dismantled and re-erected in the Agora.

Limited construction works took place in the Athenian Agora during the 1st century AD. The southwest and the southeast temples were erected from reused materials and the civic offices were built at the southwest corner of the square. Additions were also made to already existing buildings, such as an annex behind the stoa of Zeus, probably to house the imperial cult, a columnar porch to the Tholos, and a Doric propylon to the entrance of the Strategeion.

During the reign of Trajan Athens went through a period of prosperity. The earliest building in the Agora, dating to the 2nd century AD and situated along the Panathenaic Way just south of the Stoa of Attalus, was a public library, built by Pantaenus, the son of Flavius Menander. South of the library, a complex of shops was built in the middle of the 2nd century AD. An Ionic porch fronted the shops and was aligned with a similar one in front of the library, so as to create a fashionable street colonnade. Around the same time, during the reign of Trajan, the basilica at the northeast corner of the square was built. It was a three-aisled hall, which served as a law court, but also for commercial and administrative needs. Another 2nd-century addition to the Agora was a Nymphaeum, an elaborate fountain house, built west of the Panathenaic Way. It was begun during the reign of Hadrian, and completed in AD 140 under Antoninus Pius. A round building in front of the Stoa of Attalus, probably built to shelter a statue, dates to the Antonine period. At about this time the Odeum of Agrippa was rebuilt. Lastly, a library was erected by the emperor Hadrian (AD 117–38) to the east of the stoa of Attalus. Throughout the 2nd century AD the Agora flourished as a commercial and cultural centre.

The Athenian Agora was seriously damaged by the Herulians, a tribe who invaded Greece from the north in AD 267. They sacked and burned many cities, including Athens. The temple of Hephaestus survived, and excavations in the surrounding area indicate that several civic buildings on the west and north sides of the Agora, such as the Tholos, the temple of Apollo, the stoa of Zeus, the Royal stoa, and the Painted Stoa, continued to stand, though they were perhaps damaged.

Although the 4th century AD was a period of decline, limited reconstruction work took place: in the Agora the Metroon was restored, the wall of the Tholos was strengthened, and many of the houses were reoccupied. Towards the end of the century, in AD 395, Alaric and the Visigoths reached the walls of Athens; the literary sources disagree about the damage caused to the city, but excavations indicate that such buildings as the Tholos, the temple of Apollo, and the Stoa of Zeus, which survived the Herulians, were destroyed and abandoned.

After the departure of the Visigoths there was a new burst of building activity in the area of the old Agora. A large part of the square was taken up with a gymnasium complex and a porch, the so-called Porch of the Giants. Moreover, the eastern stoa of the library of Pantaenus was rebuilt with a second storey and served as a façade to a new public complex built on two levels.

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AGRICULTURE

In many regions of the Mediterranean agriculture underwent little change between antiquity and the modern age. The socio-economic and technological developments that have affected the ancient traditions of agriculture have been relatively recent. Ethnographers have found a number of similarities between the cultivation techniques of today and those described by early Greek poets such as Homer and Hesiod.

Ancient and traditional agriculture in Greece has two major factors broadly in common: climate and terrain. The continuing impact of these factors, combined with the extensive survival of cultivating cereals, vines, and olives, has ensured that many techniques of ancient agriculture have survived for thousands of years. The pioneering work of Paul Halstead has revealed a great deal about the traditional agricultural techniques that have survived among the Greek peoples of the Mediterranean.

The recommendations of ancient authors on agriculture sometimes amount to little more than aphorisms or ethical guidelines. In some respects, practice may have differed from such advice. Ancient authors advocate that fields should be left fallow for a year so that the soil could be rested. But pressures on subsistence farms may have required the cultivation of land that otherwise might have been left temporarily idle. A compromise may have been found by planting different crops on land sown previously with, for example, cereals.

Some leases outlining the obligations for the cultivation of land have survived from antiquity. An example from Piraeus allows land to be ploughed for the nine years of the agreement, but in the tenth it was to be left fallow (*Inscriptiones Graecae*, ii^2, 2498). Such strictures indicate the importance attached to leaving land fallow. The need for such guidelines also suggests that farmers may well have avoided leaving fields fallow for a year.

The cultivation of cereals, vines, and olives has remained central to Greek agriculture from antiquity. The climate – broadly speaking, low annual rainfall, dry summers, mild winters – is typical of the Mediterranean. Some regions had superior soil, others more favourable microclimates. A rich, ruddy, fertile soil was a distinctive feature of Boeotia; Thessaly enjoyed extensive tracts of land ideal for the cultivation of cereals. Some regions were famous for specific types of produce: honey in Attica from Classical to Roman times, wine from Chios, Cos, and Thasos, and olive oil on Samos.

Although it is dangerous to generalize, it is clear that the spread of olive, grain, and vine cultivation throughout the Mediterranean world and the location of Greek colonies from the archaic period were not mutually exclusive. It is no coincidence that those areas colonized were seldom unable to support these three crops, and in particular the olive.

The olive was grown by most Greek communities. Highly resistant to low rainfall, but cultivable only at relatively low altitudes, olive trees were long lasting and required little maintenance. Olives could be harvested every other year, but the trees would take 10 to 15 years to reach fruit-bearing maturity. Harvesting took place in autumn or early winter, but the particular timing would have varied from region to region. Olives provided not only foodstuff but also oil, which in turn was used as a base for perfumes and medicines, as fuel for lighting, and for athletics and bathing. The relatively simple cultivation and harvesting of the olives was a less complex task than the production of the oil itself. Processing oil required crushing, pressing, and separation of the olive. Beam presses and rotary mills were the most common devices for crushing and pressing. The study of ancient olive presses has been informed by the examination of presses still used today, where the beam press has remained little changed from antiquity.

Vines were altogether a far more labour-intensive crop to cultivate, maintain, and harvest. The spread of viticulture into southern Spain and the Black Sea cannot be separated from the diffusion of Phocaean and Greek settlers respectively. Vine growing and so wine consumption was a major feature of Hellenic civilization, and the legacy continues today. The ancient symposium was centred around the drinking of wine, albeit diluted with water. The great festival in honour of Dionysus, the Anthesteria, celebrated in late February the new wine, and the wine storage vessels were symbolically opened on the first day of the ceremonies.

The centrality of agriculture to ancient Greek life is nowhere more apparent than in the cultivation of cereals. The two most important crops, barley and wheat, were usually sown in autumn. Of the different types of wheat, the best bread-making, light wheat (hexaploid) was grown in the Black Sea region where the cooler climate and higher rainfall were more suitable for this very popular but less hardy variety. Although wheat is generally more vulnerable to extremes in climate than barley, it is more nutritious and has a much higher yield. It was therefore widely preferred. But the higher-quality bread wheats were not as well suited to the climate in most regions of Greece, especially those in the south. In the second half of the 19th century wheat was far more widely cultivated than barley, on a ratio of 3:1. The evidence from Classical Greece indicates that barley was the more common of the two crops. The high population densities, patterns of land-ownership, and farm size may have affected the selection of barley as the preferred crop. Even the best breads in antiquity were more coarse than many of those today, while barley was a main ingredient for the large variety of "cakes" eaten in antiquity.

The selection of crops for cultivation was probably driven to some extent by expected yields. The vulnerability of cereals to frost when the crop was young and green, to shortfalls in rain when ripening, and to too much rain before harvest were far greater problems for wheat than for barley. An inscription from Eleusis recording the contribution in 329–328 BC of first fruits from Attica and the Athenian-controlled territories of Lemnos and Imbros suggests that more barley than wheat was dedicated at Eleusis. It is likely that the figures reveal that there was a poor harvest in Attica that year, and that wheat yields would have suffered more seriously than barley.

Agriculture in Greece rarely concentrated on any one of the three main crops. It is almost certain that most domestic Greek farms would have practised polyculture. Farmsteads devoted to

the intensive production of one crop are known but exceptional; a large number of industrial "farms" are known at Chersonesus in the Crimea where estates were exporting their produce, probably wine. Legumes, pulses, and figs could have been grown in many areas. A variety of crops were probably grown on a typical farmstead. Intercropping, the planting of cereals, trees, vines, and pulses on one plot of land, was a likely feature of the Greek farm.

Archaeology cannot always confirm the nature of occupation in some rural establishments. A considerable amount of evidence indicates more permanent installations, some of which we might describe as farms. The Greek farm probably took many forms. People may have worked land close to their settlement, walking out to their fields daily or living in temporary shelters. Ancient and traditional Greek agriculture has generally centred around nucleated settlements, villages, or towns. Patterns of land tenure, the nature of agriculturally productive land, and sometimes issues of security have all influenced the location of settlement. It is now believed that a typical Greek household in antiquity would have had sufficient land to provide for its members. In some communities this may have been more an ideal than a reasonable ambition. Archaeological survey is suggesting that many ancient communities would have been of a size that could be sustained from local agricultural produce.

Excavation and archaeological survey in the rural landscape over the last 30 years have advanced considerably our knowledge of settlement in the countryside. Farms can be difficult to identify. Buildings with or without agricultural functions are often indistinguishable. But ancillary constructions such as threshing floors, olive presses, and field walls – all of which have changed little since antiquity – usually confirm the agricultural concerns of the building. Buildings with towers are a familiar type of rural building often used as a farm and are found throughout the Greek countryside. Aerial photography has revealed the extensive use of retaining walls in the Greek countryside and illustrates the extent to which more marginal land was exploited throughout history. However, it is very difficult, perhaps almost impossible, to date accurately such retaining or field walls.

The margins of survival for the subsistence farm may have been slim; a sequence of bad years would have had a severe impact on the household. Household size would have fluctuated as children matured, moved away, or stayed at home and married, as children were born, and their grandparents died, as slaves were bought or sold.

The intensification of agricultural production by purchasing slaves or using animals for ploughing or transporting may have been too much of a burden for the small farm. Cooperation between neighbours or members of the extended family may have allowed resources to be used within rural communities. Smaller farms were probably unable to support extensive animal farming. Larger herds would have been tended on more mountainous or marginal lands, and there is plenty of direct and indirect evidence for the extensive use of such land in the Classical period.

Storing agricultural produce was one method of protecting against shortfalls in harvests, but such methods could provide only limited amounts. A number of farmsteads in the Greek countryside consisted of a house with a tower-like structure. Such features have survived in the Mediterranean from antiquity. It is almost certain that the tower structure on such farmsteads was used for storing produce and property and on occasion for security.

Human interference was probably the greatest threat to agricultural security, in both real and conceptual terms. The interruption of agricultural activities by warfare is a major feature in Greek history: perhaps most famously, the Spartans and their allies timed their invasions of Attica during the Archidamian War (431–421 BC) to coincide with the harvest period, a critical moment for those who were required to gather the crops. Such interruptions in the agricultural year, at their most extreme the cutting off of cities from the surrounding countryside by siege, presented the most common need for food supplies to be brought in from outside a Greek community.

The connections between life in ancient Greece and agriculture are difficult to separate; the Athenians found it difficult to move from the countryside into the city during the Peloponnesian War (Thucydides, 2. 16. 2). All communities in ancient Greece were dependent on agricultural produce for supplies of food (Plato, *Republic*, 369d, 371c, 372c–d); those communites that could grow all their own grain had considerable advantages over those who needed to import food supplies (see Thucydides, 6. 20. 4).

Self-sufficiency (*autarkeia*) was an ideal that features in many ancient Greek authors when assessing structures such as the household or the polis (Plato, *Laws*, 5. 744b–e). There are few extant works that treat explicitly the art of agriculture: Xenophon's *Oikonomikos* has a great deal to say about agriculture; Theophrastus heralds a higher level of scientific understanding of botanical observation (*Research on Plants* and *Plant Explanations*) in the later 4th century BC. But common to almost all Greek literature is the primacy of agriculture: the shield of Achilles (Homer, *Iliad*, 18. 541ff.) includes a rural scene of ploughmen wheeling their teams of draught animals; the Linear B tablets are full of ideograms and logograms that allow the scribes to maintain the palace accounts of agricultural produce.

The continuing importance of agriculture to Greek life is seen most clearly in the work of archaeological surveys carried out in a variety of locations such as Messenia, the southern Argolid, Nemea, Methana, Boeotia, Aetolia, Ceos, Melos, Crete, and Lesbos. Common to these studies is the observation of the human impact on the Greek landscape over a long period of time. The surveys present findings from geological prospecting to the results of research on recent land use. The collation of statistics, anecdotes, and records of agricultural activities and settlement during the 19th and 20th centuries has produced important information for both comparative and quantitative studies of Greek agriculture.

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See also **Geology; Olive; Transhumance; Vine**

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ALCHEMY

Despite its Arabic prefix, the word "alchemy", like "chemistry", appears to be derived from the Greek root *cheo*, meaning "I pour", and its ostensible purpose is the transmutation of metals. As Jung and his followers have shown, however, the process was often treated by its more erudite exponents as a symbol of therapeutic operations on the soul. Mircea Eliade has demonstrated that in many ancient cultures the artisan enjoyed the reputation of a sorcerer, and was credited with skills beyond human science. Thus in Greek mythology Prometheus, the discoverer of fire, is the creator of human beings, while two smiths, the mortal Daedalus and the god Hephaestus, were said to have fashioned animated creatures. It is striking that all suffered injury as a consequence of their follies or misdemeanours; Zeus reserved the severest retribution for the Titans, who invented iron weapons in their war against the gods. The literary tradition pays little honour to the Cyclopes who stoked the fires of Aetna, or to the Telchines who combined the arts of witchcraft and metallurgy in Rhodes. In Israel, where all images were forbidden, there could hardly be such a thing as a pious craftsman: in the apocryphal Book of Enoch the use of stones and metals was traced back to the fallen angels, while in Genesis 4 all brass and iron artifacts, as well as musical instruments, were invented by the posterity of Cain.

The first Greek to display the classic features of the alchemist is Empedocles (*fl.* 480 BC), whose theory that every natural kind is formed by a specific combination of the four elements appears to have been the basis of his pharmaceutic remedies for disorders of the soul. The story that he died by leaping into the crater of Aetna, leaving only a golden sandal, is consistent with his magian character. Nevertheless, the first alchemical literature is attributed to the atomist Democritus and his school. He himself is credited with four treatises on the tincture, or immersion, of gold, silver, stones, and "purple", while fragments survive of a fifth on *Physical and Mystical Matters*. These overlap with the *Baphika*, or *Tinctures*, which has survived under the name of his pupil Bolus, though certain parts at least must date from the early Christian era. This maintains that every natural substance can be produced by the application of a tincture (*baphe*) to iron, copper, tin, or lead. Tincture is the addition of a solvent to a metal, which precipitates new substances according to a fixed succession of colours (black, white, yellow, and red). These correspond to the four elementary metals, but even these are reducible to lead, which, when converted to its liquid state by blackening, or *melansis*, is the prime matter of all the elements and the basis of all ensuing transformations. To know what one is making, one needs to be acquainted with the combinative properties of the reagents, or, as Bolus says, their sympathies and aversions. Sulphur, which is said to evince an extraordinary affinity with metals, is the most potent of the additives, but the ingredients of the process also include a golden alloy, Pontic rhubarb, and Italian wine.

This religious and anthropomorphic imagery, so alien to the style of the real Democritus, is justified by an appeal to books allegedly deposited in a temple by the Persian sage Ostanes.

Despite this, the majority of relevant documents are papyri from Egypt, and they leave little doubt that the poetry of the Greek alchemists originated there. The esoteric lore of Ptolemaic and Roman Egypt was collected in the *Hermetika*, so called because its contents were attributed to Hermes Trismegistus; it was he, or rather his Latin equivalent Mercury, who gave his name to the liquid essence that later alchemists used as the catalyst in their experiments. The most remarkable symbol of transformation in the philosophical portions of the *Hermetika* (often arbitrarily separated from the esoteric writings) is the *krater*, or cup, of Treatise 4, which conflates the alchemist's crucible with the mixing bowl of Plato's Demiurge (the creator of the universe). It is possible that the Egyptian name Poimandres, given to the self-transforming Mind who imparts the initial revelation in Treatise 1, commended itself to the Greeks because of its likeness to the word *poimandria* (''cauldron''). Though nothing survives in extenso under Hermes' name, he is mentioned in extant treatises as the writer of authoritative works.

The Hellenization of Egyptian literature was partly the work of Jews, and thus one is not surprised to find a papyrus which conflates the wisdom of the pharaoh Kufu with that of the Hebrew Sabaoth. No doubt it was under Jewish influence that the goddess Isis, in another alchemical papyrus, becomes a pupil of the angel Amnael and gives instruction to Horus in the role of a prophetess. Since Jewish writers generally saw cunning as a property of women, they attributed the invention of the chief alchemical instruments to Maria, another prophetess and a pupil of Ostanes. Her devices included the alembic for distillation, the conical pot, or *phanos*, for sublimation, and another vessel, the *kerotakion*, for change of colours. Sulphur again is the element to which these new refinements are applied. Since the Democritean corpus does not allude to Mary, we may assume that she is a later figment; the readiness with which this alien woman was admitted into the canon is an indication that alchemy had already become a syncretistic faith.

Most of our information about Mary comes from the pagan Zosimus of Panopolis (*fl.* AD 300) in Egypt, whose works are both the most copious and the most interesting vestiges of the ancient practice. The scholarly Neoplatonist Olympiodorus in the late 4th century thought them worthy of a philosophical commentary. Yet Zosimus, for all his pretensions, offers no philosophy in the strict sense, but rhetorical accounts of private visions, which leave us doubting whether they are remembered or imagined, and whether he is recounting a chain of episodes or describing one event in different ways. The usual polarity between the dense substrate and the fluid solvent is presented in such a manner as to make the first analogous to the body and the second to the soul. The self, which is both the subject and the goal of transformation, is represented as a man of various metals, who stands beside the crucible as a priest before an altar, then assumes the role of victim by dismembering and devouring his own flesh. This figure (the homunculus of Goethe and Paracelsus) is identified with Adam, who, with a clear allusion to the book of Genesis, is styled the virgin earth in Zosimus' *Treatise on the Omega*, where the experiment culminates in an (uninterpreted) vision of the Son of God. We may assume that mercury (or honey, as it is also called) is the object seen with the outward eyes, but of course this is merely the symbol of a mental revelation, which enables the philosopher to return to his proper dwelling place, escaping the fatal influence of the stars. Though Jung may be right to understand these visions as a manifestation of archetypal images, their content is (as one would expect) determined by the literary traditions that were available to a mystic of that era. With the Jewish and Christian vocabulary are mingled the names of Enoch, Zoroaster, and Ostanes, but the stories of Jewish captivity under Nebuchadnezzar (the statue of diverse metals, the blazing furnace, the degradation of the king) arc surely the most important prototype.

Zosimus, like the Gnostics of the 3rd century AD, relied on a lost compilation by Nicotheus, ''the Hidden One'', and alchemy appears to be entwined with the very roots of the Christian heresy (*Omega*, 11; cf. Porphyry, *Life of Plotinus*, 16). The (Phrygian) Naassenes of the 2nd century derived both matter and spirit from a ''single blessed substance'', and maintained that the soul is in constant oscillation between the two. The first man (whose ethnic character is disputed, as in Zosimus) is called Adam because he is present in every one of us as a living stone of adamant. Hermes is the spiritual demiurge who effects our liberation, while the mutilated deities Attis, Osiris, and Dionysus offer symbols of rebirth. The last named should remind us of the notorious Greek myth in which the Titans tear apart and eat the infant Dionysus, son of Zeus. After Zeus destroys them with a thunderbolt, humanity is created from their ashes, owing its divine spirit to Dionysus and its vices to the intractable Titanic residue.

Alchemy became the guiding principle of a universal science, which allotted the names and colours of different metals to the four humours, the seven ages, and the planets, which were thought to influence both. In addition, the alchemist was required to be a skilled herbalist and an expert in the medical and prophylactic properties of gems. Affinities were easily discerned between alchemical symbolism and the New Testament, where Christ is both the apex and the foundation of a temple which is identical with the body and yet made up of ''living stones''. Synesius of Cyrene (*fl.* AD 400) wrote a commentary on the Democritean corpus, while the notion of a single blessed substance that ''becomes all things'' was adapted to meditation on the Trinity by Evagrius (*Epistle* 29). Yet a discipline that purported to derive its code from nature could transcend not only the bounds of race and Church, but those of orthodoxy and heresy. Book 9 of the 13th-century epic *Parzival* by Wolfram von Eschenbach alludes to a legend cherished by the Cathars, and therefore perhaps of eastern (Bogomil) origin, according to which the Holy Grail was a stone cast out of heaven and assigned to the custody of fallen angels. Being thus an emblem of both Christ and Adam, it is able, when the proper question is put to it, to heal the bodily ailments which result from the transgression of the soul.

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ALCIBIADES 451/50–404/03 BC

Athenian general and politician

Born into a wealthy family, Alcibiades became the ward of Pericles and his brother Ariphron after his father Cleinias was killed at the battle of Coronea in 447 BC. Although he had fought at Potidaea in 432 BC, where he was wounded and his life saved by Socrates, his first datable political activity was in 420 BC in the immediate aftermath of the Peace of Nicias, which had ended the first phase of the Peloponnesian War (Thucydides, 5. 43). While Nicias advocated that diplomatic pressure should be exerted on the Spartans to persuade their allies to conform to the treaty by carrying out agreed concessions to the Athenians, Alcibiades sought to exploit the Spartans' difficulties with their allies, even at the expense of the peace. He won the argument and an alliance was made with the Argives and two of Sparta's renegade allies, Mantinea and Elis, but he was unable to obtain sufficient votes to secure the necessary resources to support his policy: only 1300 Athenian troops fought at the battle of Mantinea in 418 BC, when victory enabled the Spartans to recover their lost allies and restore their domination of the Peloponnese.

Thucydides comments on Alcibiades' youth in 420 BC; he reports that Nicias referred to him as "a young man in a hurry" in the debate on whether to send an expedition to Sicily in the spring of 415 BC (Thucydides, 6. 12). Alcibiades was handsome and eloquent, and his charisma had been enhanced by his success in the Olympic festival of 416 BC, when three of his seven entries in the chariot race were placed first, second, and fourth. His advocacy of the Sicilian expedition clearly contributed to the atmosphere of great enthusiasm and high expectations; Thucydides reports that in the end those opposed to the scheme did not dare to vote against it (6. 24). Nevertheless, his flamboyance and palpable personal ambition created mistrust, helped by the deviousness he had shown in an ostracism campaign, probably in 416 BC, when he had agreed with Nicias that they should protect one another by directing their supporters to vote against Hyperbolus (who was then ostracized) and then by a highly unusual proposal to appoint Alcibiades sole commander of the expedition (which was rejected in favour of his sharing responsibility with Nicias and Lamachus); and in the public hysteria that followed the sacrilegious mutilation of the many busts of Hermes on the streets of Athens, his enemies were able to link him with rumours of revolutionary plots to establish oligarchy or tyranny.

When the expedition reached Sicily and Nicias favoured a concentration on limited objectives, Alcibiades failed to support Lamachus' proposal of a direct attack on Syracuse, the chief threat to Athenian interests, which might well have succeeded. Instead he forced Lamachus to back his own plan first to secure more allies, despite their having failed to receive the expected help from Thurii, Rhegium, and Segesta. Alcibiades' policy was adopted with limited success, Naxos and Catane being won over, but Messana and Camarina refusing. At this point he was recalled to stand trial, but, knowing that his enemies at home had been poisoning minds against him since his departure, he eluded his escort at Thurii and fled to the Peloponnese, the Athenians sentencing him to death in his absence.

It is debatable how far Alcibiades' recall affected the Athenian forces, because Nicias now supported Lamachus' plan; after twice defeating the Syracusans outside their city, in the early summer of 414 BC he was completing a series of blockade walls around the town and had high hopes of its surrender. Alcibiades, however, had gone to Sparta and urged the Spartans to send help to Syracuse, emphasizing the extent of Athenian ambitions and their threat to the Peloponnese, and suggesting that the Spartans should at least send a competent general to organize its defence (Thucydides, 6. 91). The Spartans were persuaded and sent Gylippus, whose leadership of the Syracusans was a major factor in the disastrous defeat of the Athenians in 413 BC.

In 412 BC Alcibiades was influential in persuading the Spartans to send ships to the eastern Aegean in order to foment revolts among Athens' allies; he himself helped to win over Chios and Miletus. Meanwhile, king Agis, whose wife he had seduced, persuaded the Spartans that he was unreliable and should be eliminated, but he took refuge with Tissaphernes, satrap of the Anatolian coastal provinces, whom he sought to turn against the Spartans, also hoping thereby to facilitate his own recall to Athens. He then tried to promote a sympathetic regime there by promising that the removal of democracy would secure Persian help; and, although negotiations between Tissaphernes and the Athenian envoys failed and the Persians made a treaty with Sparta, the move against democracy, which had started, succeeded, and a short-lived oligarchy was set up in summer 411 BC.

Ironically, Alcibiades' exile was now cancelled by the commanders of the Athenian fleet at Samos, who refused to accept the oligarchy's authority. On joining them he played important roles first in preventing them abandoning their position in the eastern Aegean to attack Athens, and then in victories over the Spartans in the Hellespont (autumn 411 BC) and off Cyzicus (spring 410 BC). This must have been the period in Thucydides' mind when he said that "his conduct of the war was excellent" (6. 15), and he went on to recover Byzantium in 408 BC.

At this point (407 BC) Alcibiades thought that it was safe to return to Athens. There he received a warm welcome, his exile was officially rescinded, and he enhanced his popularity by organizing the annual procession to the festival at Eleusis to go by land for the first time since the Spartan occupation of Decelea in north Attica in 413 BC. There was still, however,

according to Xenophon (*Hellenica*, 1. 4. 17), underlying mistrust of his ambitions and, when he briefly left the fleet in charge of his helmsman Antiochus, who was rashly provoked by Lysander and lost 22 ships, he was relieved of his command and prudently retired into exile. About a year and a half later Aristophanes in his *Frogs* had Dionysus say about him that the city "longs for and hates him and wishes to have him" (line 1425). But he was still in exile near the Hellespont in the late summer of 405 BC, when his warning to the Athenian generals of their folly in beaching their fleet at Aegospotami was disregarded and a surprise Spartan attack took all but eight ships almost without a fight and effectively won the war. After Athens' surrender in 404 BC Alcibiades crossed to Asia, where he was soon killed, probably on the orders of Pharnabazus, satrap of Phrygia, at Lysander's request.

Tradition held that Alcibiades was both the object of Socrates' passion and his pupil, and this association, it seems, was much in the mind of Socrates' accusers when they charged him with corrupting the city's youth. Plato had him figuring prominently with Socrates in his *Symposium* and *Alcibiades I* (*Alcibiades II* is almost certainly not Platonic). Paired by Plutarch in his *Parallel Lives* with the Roman Coriolanus, he was taken up, like Coriolanus, by Shakespeare, who used him in his historically inaccurate *Timon of Athens*. He has continued to fascinate the modern world, notably as the central character of Peter Green's novel *Achilles His Armour* (1955).

T.T.B. RYDER

See also **Peloponnesian War**

Biography

Born in Athens in 451 or 450 BC, Alcibiades was brought up by his guardian Pericles and was a pupil of Socrates. As a politician he was flamboyant but inconsistent, supporting first Athens, as one of the leaders of the disastrous Sicilian expedition, then Sparta. Losing the confidence of both, he fled to Persia but was subsequently recalled to direct operations of the Athenian fleet. Exiled again, he crossed to Asia after the defeat of Athens in the Peloponnesian War and was murdered in Phrygia in 404/03 BC.

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ALEXANDER III THE GREAT 356–323 BC

King of Macedon

After the assassination of his father king Philip II of Macedon, at Aegae (modern Vergina) in 336 BC, the 20-year-old prince Alexander acceded to the throne as Alexander III. The vast kingdom of Macedonia that he inherited extended eastward at this time to Thrace and the Black Sea, south to Thessaly, west into modern Albania, and north into the former Yugoslav republics and parts of Bulgaria. As a kingdom, it was politically distinct from the city states of the Greek mainland, although there had been contact between Macedon and Greece for hundreds of years. To give a few examples: an ancestor of Alexander III of the 5th century BC, king Alexander I, was known as "the philhellene" because of his alleged secret help to the Greeks during the Persian Wars, and Greek cities founded along the east coast of Macedonia and in Chalcidice certainly had been in contact with the Macedonians for centuries. Most importantly, recent archaeological investigations in Macedonia have shown beyond doubt that there were close links between aristocratic Macedonian society and the culture of mainland Greece: Attic pottery was imported to Macedonia by the end of the 6th century BC (found in cist graves at Sindos); the city of Pella (developed as the new capital at the end of the 5th century BC) has revealed the best extant pebble mosaics, impressive small finds from the agora, and the recently excavated royal palace, besides being the place where the great Athenian tragedian Euripides ended his life in exile; and the spectacular gold and silver vessels, armour, and jewellery from the 4th-century BC royal tombs at Vergina prove beyond doubt that the Macedonian court class was a rich, cultivated, and sophisticated society completely familiar with the culture of Greece. None the less, there was a deep-seated ethnic rivalry between Macedonian and Greek that the troubled political situation of the 4th century BC intensified. Throughout his life Alexander appears to have regarded the Greeks with suspicion, and never trusted them in political terms.

Alexander's father Philip II had become the political leader of mainland Greece after his defeat of the Greek forces at the battle of Chaeronea in Boeotia in 338 BC. He controlled the city states by enrolling them in an unequal alliance with him known as the League of Corinth (where the first meeting was held), and enlisted his Greek "allies" in a war of revenge against the Persian empire, ostensibly to free the Greek cities of Asia Minor from Persian rule, but in all probability to extend Macedonian control into Asia Minor. The young Alexander inherited control both of the League of Corinth and of the war to win the "freedom of the Greeks of Asia". It is on this basis that he undertook his famous expedition to the east, which has immortalized him as one of the greatest conquerors of all time, worthy of the epithet "the Great". Alexander's military campaigns, his defeat of the Great King of Persia and assumption of that title and position, his further expedition to the Indus river system in the Punjab, his return to the west after a troop mutiny, and his untimely death at Babylon in June 323 BC are all well known

and described in an ever-expanding bibliography. His extraordinary military exploits and invincibility inspired later generals (Pompey, Caesar, Augustus, Trajan, and even Napoleon) to emulate him, and his early death at the pinnacle of his fame ensured his elevation to heroic legendary status and his position as a quintessentially romantic, fascinating historical figure.

Alexander the Great's contribution to the Hellenic tradition must be assessed in various ways. Merely to assert that he was the greatest and most famous figure in Greek history whose allure has lasted to modern times is not enough; although this claim alone may justify Alexander's place in posterity, it is a simplistic view based on our admiration for his achievements and fascination with such an enigmatic man. Various issues emerge from the study of Alexander, however, that are relevant to our appreciation of him in the context of Hellenic tradition. These embrace fields as diverse as art history, political developments, religion, and literature.

During his lifetime Alexander was responsible for an innovation that had important consequences for the history of Greek art. Up to the end of the 4th century BC the medium of portraiture was confined to "generic" portraits (a suitable type depicting a noble statesman, a general, etc.) and "imaginary" portraits (e.g. a hypothetical depiction of Homer; if a poet called Homer had indeed existed in the 8th century BC, certainly no one hundreds of years later could have known what he looked like) (see G.M.A. Richter [rev. by R.R.R. Smith], *The Portraits of the Greeks*, Oxford: Phaidon, 1984). Although the beginnings of individualistic portraiture may be traced to Persian kings and satraps of the 4th century BC, Alexander seems to have been the first ruler in the Greek world to control the production of his own image. The ancient sources tell us that he had a court sculptor, a court painter, and a court gem engraver whom alone he trusted to depict him in the approved manner. The surviving portraits of Alexander show that he was represented in a highly idealized way that was immediately identifiable (see J.J. Pollitt, *Art in the Hellenistic Age*, Cambridge: Cambridge University Press, 1986, pp.19–25). It could be argued that it was desirable for the peoples of his vast empire to have a recognizable depiction of their king, but such a conscious manipulation of one's image was quite new in Greek art, whether it stemmed from deliberate calculation on Alexander's part or merely excessive vanity. The canonical image of Alexander was taken over by his successors for propaganda purposes (see below), and the art of portraiture developed in the Hellenistic age into a major artistic genre, because the kings of the new Greek empires immediately appreciated the ways in which images of themselves could prove beneficial (see R.R.R. Smith, *Hellenistic Royal Portraits*, Oxford: Clarendon Press, 1988).

The personal empire that Alexander created in Asia was not the same as the Macedonian state. At the age of 20 the king had left his homeland under the control of the regent Antipater, with whom he had only sporadic contact for the next 11 years, and he died unexpectedly – never having returned home or secured the Macedonian succession with an heir – with only interim administrative arrangements in place for the vast eastern territories he had conquered. By the end, Alexander's entourage consisted not of an inner circle of nobles who had traditionally advised the king according to Macedonian custom, but of a group of self-made, ambitious generals whose position depended on their personal loyalty to Alexander himself. These men (the so-called "successors") were suddenly left leaderless in Babylon, and some 20 years of chaos ensued before the emergence of three relatively stable new empires, which form the focus of the "Hellenistic" history of the next three centuries.

It soon became clear that Alexander's empire could not survive intact under a single successor. Alexander's posthumous infant son Alexander and his half-witted half-brother Philip Arrhidaeus were declared joint kings, Alexander IV and Philip III. Their regent Antipater, who had been a general under Philip II, firmly resolved to take the kings home to Macedonia, thereby returning Macedon to its origins as a Balkan kingdom. This might have allowed the royal Argead dynasty of Macedonian kings (the family to which both Philip II and Alexander the Great belonged) to continue to rule in an unbroken bloodline in their European homeland, but both kings were soon murdered in the power struggles among the successors, as were, eventually, all the immediate members of Alexander the Great's family. This signalled the extinction of the Argead line of Macedonian kings. Paradoxically, the political and personal influence of Alexander, the absent king, in his Macedonian homeland was far less important than that of his father Philip II had been, and it pales into insignificance when compared to his posthumous reputation and influence in the Asia he had opened up to the Greeks.

Since the sole uniting feature of Alexander's empire had been the king himself, various successors, who were eager to establish their own power in areas of Asia, sought to cloak themselves with the aura of Alexander's legacy in an effort to gain political legitimacy. Although none actually claimed to be Alexander's sole successor, attempts at "identification" with the late king proved a forceful propaganda tool in establishing the validity of their respective political power. Much of this imitation was achieved by the manipulation of royal iconography and the use of Alexander's image. For example, although Alexander himself never minted coins with his own portrait on them, shortly after his death some successors issued coinage with a highly idealized, almost divinized, head of Alexander adorned with subtly emotive attributes: the horns of Zeus Ammon (the oracular god whose shrine in the Egyptian desert Alexander had visited and with whom he felt a particular affinity for the rest of his life), the elephant-scalp headdress (which refers to his victories in India where he faced elephants in battle), and the royal diadem. These early portrait coins of Alexander clearly illustrate the potency of his image, but also directly influence the coinage of all his royal Hellenistic succesors, which contains the head of the particular ruler and a selection of themes with propaganda value pertinent to the royal house in question (see Norman Davis and Colin M. Kraay, *The Hellenistic Kingdoms: Portrait Coins and History*, London: Thames and Hudson, 1973, plates 1–9).

The strength of Alexander's posthumous reputation as a tool of royal propaganda is seen most clearly in the kingdom of Ptolemaic Egypt (ruled by Alexander's former Macedonian general Ptolemy who subsequently declared himself king and founded a dynasty that ruled Egypt until the suicide of Cleopatra VII in 31 BC). Ptolemy hijacked the funeral cortège of Alexander while it was en route from Babylon, and brought his body to Egypt, eventually burying it in a magnificent tomb in his capital, Alexandria. By this devious act, Ptolemy became

the guardian of the body of Alexander, which elevated his importance even as it linked him inextricably with the late king. The remains of Alexander and his magic belonged to Ptolemy. The tomb became the focus for the worship of Alexander (in Alexandria he was worshipped as the "founder God") and, later, of the royal cult of the Ptolemies themselves (see below). The continuing importance of the tie of the Ptolemaic royal family with Alexander was graphically illustrated in a procession staged in Alexandria by Ptolemy I's son and heir, Ptolemy II Philadelphus. A major part of this procession honoured the Greek god Dionysus (from whom the Ptolemies claimed descent), and one important pageant depicted Dionysus as the returning conqueror of India. The parallel between the Indian victories of Dionysus and Alexander (who also features in the procession) was made explicit in the context of the procession, and the Ptolemies shared in the splendour of the eastern triumph as the heirs of Alexander and Dionysus (see E.E. Rice, *The Grand Procession of Ptolemy Philadelphus*, Oxford: Oxford University Press, 1983, pp.84–86). In Egypt Alexander's image and posthumous reputation were deliberately used as powerful symbols of invincibility, divine connections, and the legitimate transfer of political power to the Ptolemaic royal house.

Alexander's views about his own divinity remain unclear because there is little evidence as to what he himself thought about it. He was not the first mortal to receive honours of a superhuman nature, but it appears that he was voted certain divine honours and welcomed them, even if he did not actually demand them. However this may be, the worship of Alexander was widespread in many parts of Greece and Asia after his death, as various cults, priests, dedications, etc., attested. This worship of Alexander clearly influenced the development of the ruler cults of the various Hellenistic monarchies, the deification of monarchs during their lifetime, and the civic cults established by Greek cities in honour of various kings, once the boundary between gods and men, and the honours appropriate to each, had become blurred. When the Romans came to dominate the Greek east, the establishment of the imperial Roman cult in this area can be seen as a natural progression of the acceptance of the worship of a human being (see S.R.F. Price, *Rituals and Power: The Roman Imperial Cult in Asia Minor*, Cambridge: Cambridge University Press, 1984).

A far more difficult issue is the question of Alexander's role in the Hellenization of the east. How far was Alexander himself responsible for the fact that, over the following several centuries, vast areas of Asia (comprising the Middle East, modern Turkey, Iran, Iraq, and parts of Afghanistan and Pakistan as far as India) became urbanized, populated by Greeks living in harmony with native peoples and remaining largely Greek-speaking, even after many of these territories were incorporated into the Roman empire? Alexander is often regarded as one of the greatest city-founders of all times. His cities were mostly named "Alexandreia" (the transliterated form of the name in Greek), and stretched from Alexandria in Egypt at the southwest tip of his empire to Alexandria Eschate ("the Furthest") on the Jaxartes river (modern Syr Darya) in Central Asia in the extreme northeast of it. It has often been claimed that these Alexander-foundations were responsible for spreading the light of Greek civilization throughout barbarian Asia, but the truth is impossible to ascertain. The ancient sources differ widely about the number (from very few to very many) and locations of his city foundations, as well as their nature. Some, we are told, were cities in the proper sense: permanent settlements with civic institutions and buildings in the Greek style. Others appear to have been fortified military settlements sited at strategic geographical points, and yet others outlying guard posts established as needed to control the surrounding area. There is no evidence for Alexander's reasons for founding cities – if indeed he had a well-thought-out policy in so doing beyond a general preference for civic life – although the rationale behind those that had a military or strategic importance seems obvious enough. In the few cases where we are told of its composition, the population was a mixture of time-expired Macedonian veterans, Greek mercenaries, and local inhabitants who volunteered to settle there. It is no coincidence that very few Alexandrias known from literary sources have been identified on the ground. In the first place, the pattern of life in Central Asia was essentially nomadic, not accustomed to urbanization. Furthermore, the artificially gathered population was an unhappy mix of peoples (many of them thousands of miles from home and probably longing to return) who had no natural affinity with each other. Many Alexandrias probably soon died out from lack of interest, starvation, internal warfare due to ethnic tensions, or migratory invasions from outside, leaving no identifiable archaeological remains. Other Alexandrias may have been refounded and renamed by Alexander's successors, leaving no clue as to their original foundation.

Given the above considerations, the conclusion must be that Alexander's ephemeral cities themselves can have hardly caused the east to be Hellenized as it was to become in the Seleucid and Graeco-Roman period. The sense in which Alexander can indeed be said to be ultimately responsible for the spread of Hellenic culture in this region is that it was he who opened up the east geographically to the west and created the possibility of Graeco-Macedonian domination there, even though he did not live long enough himself to see it permanently pacified and administered by a ruling class of his creation. The eventual results of Alexander's actions, therefore, must not be confused with his irrecoverable intentions at the time, since it was left to his successors to carry out their own schemes of urbanization and Hellenization.

Finally, Alexander's achievements and extraordinary fame contributed in an unexpected way to the development of ancient Greek literature and, through it, to the development of medieval and modern literature. Many histories of Alexander were written in antiquity, from contemporary eyewitness accounts of the campaigns to works by writers who lived hundreds of years later. The former survive only by title or in quotation by the latter, who drew upon these first-hand accounts as well as on a large body of popular tales that quickly grew up about a figure as world-famous as the great Macedonian conqueror. None the less, these serious histories of Alexander – however important they undoubtedly are to our understanding of Greek historiography – share the stage with a work of a type that has more in common with the ancient novel, namely the romance, a genre of Greek literature that was increasingly popular in the Hellenistic and Graeco-Roman periods.

The so-called *Alexander Romance* is a fascinating "pseudo-historical" source for Alexander the Great. It is a fictitious account of Alexander's exploits based loosely on the historical

record, combining several different sources into the main Greek version which has come down to us (it was falsely assigned to Alexander's official historian Callisthenes – hence its frequent attribution in modern literature to pseudo-Callisthenes). Scholars have argued that the *Alexander Romance* dates in its present form from the 3rd century AD (although it incorporates older elements), and that various identifiable strands in it include a fictitious biography of Alexander, an epistolary novel of Alexander's supposed letters, and set-piece descriptions of marvels (see Tomas Hägg, *The Novel in Antiquity*, Oxford: Blackwell, 1983, pp.125ff.). However this may be, the *Alexander Romance* was a hugely popular and influential work, and the vehicle by which a version of Alexander's deeds passed into several different cultures. There was a Byzantine metrical version of the *Romance*, and it was translated in the Middle Ages into some 35 different languages, among them Latin, Syriac, Arabic, Armenian, Hebrew, Ethiopic, and Hungarian. The Alexander of the *Romance* and his amazing exploits became one of the most popular heroes in the medieval Ottoman Karagöz shadow-puppet theatre, and can still be seen today in its modern Greek equivalent, the Karaghiozis puppet theatre.

E.E. RICE

See also **Alexandria; Antigonids; Imperial Cult; Macedonia; Philip II; Ptolemies; Seleucids**

Biography

Born in 356 BC, the son of Philip II and Olympias, Alexander was a pupil of Aristotle. He fought at Chaeronea in 338 and succeeded to the throne of Macedon on his father's death in 336. Having established himself a master of the Greek world, he crossed the Hellespont in 334 with a huge army to conquer the Persian empire. He died on his return, at Babylon in 323 BC. His military exploits and early death ensured his immortality in the Hellenic tradition.

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ALEXANDRIA

City in Egypt

At the time of Alexander the Great's invasion of Asia, Egypt had been, intermittently, a remote part of the Persian empire since 526/25 BC when the Great King Cambyses invaded and conquered the country. Persian rule appears to have been harsh during the 4th century, with the result that Alexander was welcomed by the Egyptian populace to whom another foreign conqueror was welcome if it meant the end of hated Persian rule. Alexander entered Egypt from Gaza, and paid his respects at the inland dynastic capital Memphis (south of Cairo) before sailing north along the Nile via the western branch of its delta to the Mediterranean coast, to a small native town called Rhakotis.

There, in 331 BC, Alexander made the first, and indisputably the greatest, of his city foundations, and named it "Alexandreia" (in Greek) after himself. The ancient literary sources give us a romantic picture of the young Alexander appreciating the suitability of the site and taking a personal interest in the design of the city, pacing out the line of the city walls and marking the location for various structures inside. However this may be, the coastal site of Alexandria was a magnificent choice for a city, facing on to the Mediterranean, endowed with good natural harbours, and with easy access to the interior of Egypt through the river system. It may be that local Greek traders in the region (Greeks had been settled at the inland delta city of Naucratis since the 7th century BC) persuaded Alexander of the site's potential, or perhaps Alexander – with a view to his posterity – just acted upon a suggestion that was attractively presented to him. The actual design of the new city was left to Deinocrates, a Macedonian town planner/architect in Alexander's entourage.

Alexander left Egypt and continued his expedition to the east, leaving Alexandria under the control of an appointed financial administrator, Cleomenes of Naucratis. Alexandria seems to have functioned as a Greek polis from shortly after its foundation. When Alexander died in 323 BC, the territory which he had conquered was divided up among his successors for the purposes of administration. The satrapy of Egypt was assigned to Ptolemy son of Lagus, a Macedonian boyhood friend of Alexander who served as a general during the eastern expedition, and it remained firmly in his hands throughout all the struggles of the successors. Cleomenes had proved to be notoriously corrupt in his dealings with the grain trade. After Ptolemy arrived in Alexandria, he made Cleomenes subordinate to him and eventually had him killed. When, in line with the other successors, Ptolemy declared himself a "king"

in 305/04 BC, Alexandria became the capital city of his new kingdom, and it remained the capital of the Ptolemaic empire throughout the course of its existence.

During the reigns of Ptolemy I and his son Ptolemy II Philadelphus, Alexandria developed into a great city which became the jewel of the Mediterranean, taking over from Athens as the commercial and cultural capital of the Greek world. Immigrants were recruited from all over the Greek world to settle in the new city, and soon there evolved a mixed population of Greeks, native Egyptians, Jews, and other ethnic groups. To the first Ptolemies must be attributed the developed layout of the city (based on a grid plan around two main intersecting thoroughfares running the length of the ancient city) and the construction of its most famous features. (The best ancient description of the city is found in book 17 of the geographer Strabo, who visited Alexandria in 24 BC.) Knowledge of ancient Alexandria is limited both because the ancient city has been continuously inhabited and built over, and because the shoreline has sunk several metres since antiquity, submerging large areas of the original city.

The great Pharos, or Lighthouse, of Alexandria was constructed in the eastern harbour, perhaps on the site of an earlier beacon, on the small offshore island of Pharos (whence the lighthouse takes its name) which in antiquity was connected to the mainland by a causeway. The site is occupied today by the 15th-century fort of the Sultan Qait Bey. The Pharos is described by many ancient authors and is depicted on coins of the Roman period. It was the latest construction to be reckoned as one of the seven wonders of the ancient world. An inscription attests the involvement of Sostratus of Cnidus, but whether as architect or dedicator is unknown. Recent underwater excavations near the fort have revealed major remains from the structure.

The main royal complex of the Ptolemies was a huge area known as ''the palaces'', comprising several major buildings. Its location was thought to be in the area of the Lochias promontory, approximately the site of the smaller modern headland Silsileh on the eastern side of the east harbour, and this has been confirmed by exciting new underwater excavations west of Silsileh. Finds apparently from the palaces have been recovered but they are still being studied. The royal residences of the Ptolemies would undoubtedly have been grand and luxurious, reflecting their acclaimed wealth, but the palaces contained other structures which housed institutions credited with the preservation and dissemination of Greek culture.

The Museum (in Greek *Mouseion* – Shrine of the Muses) was founded probably by Ptolemy I as a complex of residential blocks and study facilities for scholars. Attached to it was the famous Library of Alexandria, founded originally in imitation of the library in Athens but soon eclipsing it in size and fame (ancient sources mention some 490,000 papyrus rolls). The librarian was appointed directly by the king and held the post for life. The library was responsible for the codification, copying, and therefore preservation of much of Greek literature, and attached to the museum and library were some of the greatest Greek scholars and writers of their day from all over the Greek world, many specially invited to Alexandria by the king: the 3rd-century BC poets Callimachus, Theocritus, Lycophron, and Apollonius Rhodius, the mathematician Euclid, the astronomer and geographer Eratosthenes of Cyrene, the grammarian Aristophanes of Byzantium, the 2nd-century AD geographer Claudius Ptolemy, to name but a few. It was an irreparable loss that the library was accidentally burnt in 48 BC during Julius Caesar's ''Alexandrian War''. A second large library was attached to the temple of Sarapis (or ''Sarapeum'') in the southern part of ancient Alexandria.

The Greek translation of the Hebrew Old Testament, the so-called Septuagint, was made at Alexandria. Tradition maintains that King Ptolemy II summoned the greatest Jewish scholars of the day to his city, and entertained them while the translation was made. It may rather have been at the behest of the Hellenized Jewish community whose knowledge of Hebrew was decreasing to the point that they could no longer read their holy books in their original language.

Alexandria's fame was furthermore ensured by the burial there of Alexander the Great. His funeral cortege from Babylon was diverted by Ptolemy I to Egypt, and his body first buried in the dynastic capital Memphis before being transferred to a grand tomb (in Greek the ''Sema'' or ''Soma'') in or near the palaces area in Alexandria. The various chronological stages of construction for this tomb are uncertain due to varying literary tradition, but, in time, the Ptolemies themselves were buried there and the Sema became the focus of the cult of Alexander and the ruler cult of the Ptolemies. The original gold sarcophagus is said to have been replaced later by an alabaster one, and it is attested that the 3rd-century AD Roman emperor Caracalla gazed upon the embalmed Alexander.

Throughout the centuries of Ptolemaic rule in Egypt, Alexandria remained their capital, and, so far as we can tell, primarily a Greek city, although Egyptian architectural and decorative elements can be seen, especially in the extensive necropolis areas with their rock-cut chamber tombs designed for multiple burials. In common with the other Hellenistic kingdoms, Alexandria came to the attention of Rome, and by the 1st century BC became involved in the Roman civil wars. It is well known that the last Ptolemaic queen, Cleopatra, had a liaison with Julius Caesar, and a renowned love affair with Mark Antony. Their naval defeat at Actium at the hands of Octavian (later the emperor Augustus) led to the suicides of both Antony and Cleopatra.

After the death of Queen Cleopatra VII in 31 BC the Ptolemaic dynasty came to an end and Egypt became a province of the Roman empire. Alexandria continued to flourish due to its advantageous location for east–west trade, and became the second largest city of the empire. For the first three centuries AD massive freighters carrying the Egyptian grain which fed the population of Rome set out on their journeys from Alexandria every spring. Alexandria continued as a centre of learning. It was the home of the Neoplatonist school of philosophy, whose most influential member was the 3rd-century AD scholar Plotinus, who studied in Alexandria for a time. The school remained active until the 6th century AD, and influenced later Byzantine Greek thought, among much else. A great corpus of commentaries on the famous 4th-century BC Greek philosopher Aristotle was produced by the Alexandrian school.

This pagan tradition existed alongside Christianity, which came early to Alexandria. The evangelist St Mark is reputed to have come to Alexandria in the 1st century AD, to have been its first bishop, and to have been martyred there. Alexandria

became one of the main centres of the Christian Church in the first centuries of its existence.

E.E. RICE

See also **Alexander; Egypt; Jews; Libraries; Museum of Alexandria; Ptolemies**

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ALPHABET

The ancient Greeks can be credited with providing humankind with the first fully alphabetic writing system – an intellectual achievement and technological leap of no mean significance. As is almost universally the case with such advances, the Greek alphabet was built upon a previously existing model – in this case, the consonantal script of speakers of a west Semitic language. Herodotus gives the credit to Cadmus and his fellow Phoenicians who had come to Greece in search of the abducted princess Europa:

> And these Phoenicians who had come with Cadmus ... and settled this country brought to the Greeks, among many other arts, the letters – which, I believe, were not previously known to the Greeks. Eventually they changed the sound and the shape of the letters. In this time, it was mostly Ionian Greeks living around the Phoenicians, who, having learned the letters from them, used these, making a few changes in their shape. The Greeks still called the letters "Phoenician", as was right, since the Phoenicians had brought them to Greece (Herodotus, 5. 58–61)

Modern scholarship has been almost unanimous in its agreement with Herodotus regarding the Phoenician source of the alphabet.

Herodotus was probably also accurate in envisioning that the Greek adaptation of the Semitic consonantal script took place in a setting in which Greeks and Phoenicians lived in close proximity to one another. Beyond that, the Greek alphabet may have made its first appearance in the Aegean among the West Ionic speakers of Euboea, bordering upon the region of Boeotia in which Cadmus is reported to have settled. The actual Greek acquisition of the Phoenician script, however, probably took place in some other locale and somewhat later than the date in the 2nd millennium BC in which Herodotus' Cadmus would have arrived in Greece.

Prominent among those places that have been proposed for the Greek adaptation of the Semitic writing system are Crete, Rhodes, Al Mina, and Cyprus. Of these, the most compelling candidate (on both linguistic and non-linguistic grounds) appears to be Cyprus, where literate Greeks writing with a syllabic script (the Cypriot Syllabary) lived side-by-side with Phoenicians using their consonantal script. The probable date of adaptation is the early 8th century BC (or possibly even the late 9th century BC).

The Phoenician script, like other West Semitic writing systems of antiquity, consists only of characters for consonants; vowels are not directly represented in Phoenician orthography. Since the Phoenician language possesses several consonants not occurring in Greek, the Greek adapters of the Phoenician script had at their disposal several superfluous consonantal symbols. These they converted to vowel characters: Phoenician *aleph*, representing a glottal stop, was adopted as a symbol for the vowel *a*, that is *alpha* (A); Phoenician *he*, the symbol for *h*, became Greek *epsilon* (E), spelling *e*; *'ayin*, symbol for the Phoenician voiced pharyngeal fricative, was taken over as *omicron* (O), representing Greek *o*; *yod*, the character for *y*, became Greek *iota* (I), used to spell *i*; and Phoenician *waw*, *w*, came to be used for spelling the Greek vowel *u* – the letter *upsilon* (, as well as being used for the consonantal character called *digamma* (*F*), representing *w*). In this way, those Greeks who adapted the Phoenician script for their own use created the first writing system to represent systematically both individual consonant and vowel sounds.

In time, two additional vowel characters appeared in the Greek alphabet. The Phoenician letter *Het*, representing a voiceless pharyngeal fricative, was first used for Greek *h*. The consonant *h* did not, however, occur in certain dialects of Greek (such as Cretan and East Ionic); in these, the Greek symbol derived from *Het*, that is *eta* (H), came to be used to represent a long vowel *R*. In parallel fashion an additional vowel character was created (being derived from the symbol *omicron*) in order to represent the distinct long vowel *ō* – the character *omega* (Ω) – and was appended to the very end of the alphabet. Prior to these developments, *epsilon* and *omicron* had been used for representing both short and long *e* and *o* respectively.

The Greek adapters of the Phoenician script included in their alphabet two different characters representing *s*-sounds.

One of these stands in the alphabetic position of the Phoenician letter *sade* (representing a so-called emphatic fricative or affricate, a consonantal sound characteristic of Semitic languages), the other in the position of Phoenician *shan* (Hebrew *shin*, symbol for *sh*). The former of these corresponds to the Greek letter commonly called *san* (M), the latter to that called *sigma* (Σ). The inclusion of both in the early Greek alphabet suggests that the Greek dialect of the adapters was one in which two distinct *s*-type sounds occurred – a picture consistent with a Cypriot origin of the alphabet. Most Greek dialects had only a single *s*-sound, however, so that the various local, or epichoric, varieties of the Greek alphabet that developed as the script spread across the Greek-speaking regions retained only one of these two symbols.

The name of the character *sigma* is certainly secondary, not continuing a Phoenician letter name (though the contrary claim has been made), and was derived from the Greek root *sig-*, seen in the verb *sizo* (''I hiss''), having an earlier stem **sigyo-*. Herodotus (1. 139) writes that among some Greeks the character *sigma* is itself given the name *san*, and this is also the name by which the latter is commonly denoted in Greek poetry. In all likelihood, *san* was the early Greek name of the *sigma*-character (Σ) and simply continues the name of the corresponding Phoenician letter, *shan*. The original Greek name of that non-*sigma s*-character, the one more commonly called *san* (M, corresponding to Phoenician *sade*) is thus unknown, the name *san* having become affiliated with it in those epichoric alphabets from which the *sigma*-character was excised.

Also noteworthy is the inclusion in the early Greek alphabet of two double-consonant characters (i.e. letters that represent a sequence of two individual consonants). The letters in question are Greek *zeta* (Z) and *xi* (Ξ). *Zeta* represents the sequence *zd* (having become *z* in modern Greek) and corresponds to the Phoenician letter *zayin* (symbol for *z*); while *xi* was assigned the value of *ks* by the Greek adapters, and is derived from the Phoenician symbol *samek* (representing *s*, though perhaps earlier with a value such as *ky*). The presence of these symbols in the early Greek alphabet is a curious matter, given that they are completely redundant; in other words, the consonant sequences that they represent could have been written using two individual consonant letters. Thus, the sound sequence of *zeta*, for instance, could have been spelt *sd* (*sigma* (Σ)+*delta* (Δ); in accordance with Greek phonetic structure, in this context *sigma* would automatically have the voiced value *z*); and, similarly, the sound sequence of *xi* could have been spelt *ks* (*kappa* (K)+*sigma* (Σ)). The incorporation of these characters in the alphabet again points to Cyprus as the place of adaptation, where similar biconsonantal symbols are properly accounted for within the structure of the Cypriot Syllabary.

In addition to the Greek letters that the adapters derived from corresponding Phoenician characters, and to the vowel letter *omega*, added to the end of the alphabet, certain of the local Greek alphabets are characterized by the presence of three additional letters, immediately preceding *omega*. These are the so-called ''supplementals'', having no formal Phoenician counterparts. One of these supplementals is the letter *phi*, representing an aspirated stop *ph* (which later becomes the fricative *f*). The second is *chi*, spelling an aspirated velar stop *kh* (later a velar fricative, often transcribed *ch*). The third is yet another biconsonantal character; in this case one representing the sequence *ps*, namely *psi*. As will be seen below, however, different values are in some places attached to these two last-named letters.

The numerous regional forms of the alphabet that developed among the ancient Greeks can be subdivided into three fundamental types on the basis of these supplemental characters. To begin with, there are so me epichoric alphabets that lack the supplementals. These are the so-called ''primitive'' scripts of Crete, Thera, and Melos (also called the ''green'' scripts, after the colour-coded map of Greek alphabets which was included in Kirchhoff, 1867, most recently republished in 1973). In those alphabets that do include the supplemental characters, the letter *phi* (Φ) appears everywhere with the value *ph*. Differences occur, however, in regard to the remaining two supplementals.

In the ''blue'' alphabets (again, so called after Kirchhoff's map) *chi* appears as C, representing *kh*; and *psi* (Ψ) has the value *ps*. Among a subset of blue alphabets, however, the supplemental *psi* does not occur (and *ps* is spelt with two letters: *phi*+*sigma*; in the same way these alphabets lack the Phoenician-based biconsonantal letter *xi* (Ξ), and spell *ks* as *chi*+*sigma*). The blue alphabets lacking *psi* have been dubbed ''light blue'', the remainder ''dark blue''. Light blue alphabets were used, for example, in Attica and on some of the Aegean Ionic islands; Corinth, Mycenae, and the Ionic cities of Asia Minor, among other places, used the dark blue alphabet.

A large number of regional alphabets show yet a different configuration with regard to the supplemental characters; these are the so-called ''red'' alphabets. Here the symbol X (blue *chi*) represents not *kh*, but the sequence *ks* (and the Phoenician-based Ξ, representing *ks* in dark blue alphabets, does not occur). Moreover, the symbol Ψ in the red alphabets does not spell *ps*, as in the dark blue alphabets, but is used to represent *kh* (and there is no single symbol for *ps*). The order of the supplementals in the red alphabets is X (*ks*), Φ (*ph*), Ψ (*kh*), versus dark blue Φ (*ph*), X (*kh*), Ψ (*ps*). Among those places using red alphabets were Euboea (and its colonies), Boeotia, and Thessaly.

In 403 BC the Ionic alphabet (a dark blue script) was adopted by Athens as its official alphabet. Within a few decades, this Attic alphabet had spread throughout the Greek-speaking world and replaced most of the regional varieties. Beyond being the ancestor of the modern Greek alphabet, this script would have great influence on the development of writing in Europe, and beyond.

St Cyril and St Methodios, accompanied by other Greek missionaries, set out in the 9th century AD to bring Christianity to the Slavs. As a part of their evangelistic efforts, and on the basis of their own Greek alphabet, the saints developed two alphabetic writing systems with which the Bible could be translated and recorded in the Slavic language of their converts (Old Church Slavonic). One of the scripts, Glagolitic, would survive only in limited usage, but the other, Cyrillic, would give rise to the writing systems of numerous different Slavic peoples – Russian, Ukrainian, Serbian, Bulgarian. The Russian Cyrillic alphabet would in turn be adapted for writing various non-Slavic languages of Eurasia. The alphabetic scripts which, by tradition, St Mesrop designed for writing Armenian and Georgian (5th century AD), though perhaps of mixed heritage, were also clearly fundamentally based on the Greek alphabet.

It was a Greek alphabet of Magna Graecia, of the red variety, that was acquired by the Etruscans in the 7th century

BC. This in turn was transmitted to various peoples of the Italian peninsula, most significantly to the Romans. The Roman alphabet probably inspired the development of the Runic scripts of the Germanic peoples of Europe (and perhaps the curious Celtic Ogham script as well), but, more importantly, was spread to Europe itself, both by Roman armies and, in time, by the Roman Catholic Church. Acquired as the writing system of English and other languages of Europe, it would be spread around the globe. In the final analysis, all alphabetic writing systems in use today have their origin in the Greek alphabet, with the exception of the Han'gul script of Korean.

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See also **Phoenicians; Syllabary**

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ALTARS

Altars of one kind or another have been employed continuously from a very early period in Greek history, but the two contrasting dictionary definitions, a "flat-topped block for sacrifice or offerings to a deity" and a "communion table" point to significant discontinuity.

Prehistoric altars could be portable ("tables of offering") or permanent. The latter include rough stones (Mycenae), bench altars (Knossos, Mycenae, Kea, Phylakopi, Tiryns), and some freestanding structures. Of the last, one, apparently used for human sacrifice, comes from Middle Minoan Crete (Anemospilia, Archanes), another stands in the central court at Phaestus, and a further example is represented in the frescos of Xeste 3 at Akrotiri on Thera. In Early Bronze Age Crete stone-built altars are associated with tombs. Sometimes (sanctuary of Apollo Maleatas, Epidaurus, prehistoric phase) altars were formed of the gradually accumulated debris of offerings, whether of sacrificial animals or material gifts, deposited on a sacred spot. By the Archaic period altars were often regular in shape, frequently made of ashlar masonry and with some architectural decoration (e.g. volutes, mouldings, friezes: Cape Monodendri, Miletus).

The most prominent altar type of later antiquity (including the Classical period) was the built *bomos* (platform altar), sometimes an isolated structure, but normally associated with a temple and standing outside its eastern front. On this sacrificial victims were burned. Altars were still sometimes (altar of Zeus at Olympia) composed of debris. From the Hellenistic period some public altars were enclosed by huge, monumental structures and bore extensive sculptural decoration (Great Altar of Zeus at Pergamum). Heroes and chthonic deities, as distinct from the Olympian gods, had a ground altar (*eschara*) which allowed wine and blood to soak into the earth, their natural home.

Smaller private altars, domestic or funerary in function, and of various shapes, are also found. Funerary altars, often round and decorated with garlands and bucrania (the decoration refers to the garlanding of sacrificial animals) are common only in later periods, especially the Roman. Not all offerings were sacrificial: wine, cakes, etc. might be appropriate, according to the occasion, and were more commonly offered on the smaller altars.

In Christian practice the altar originally connoted the table (*iera trapeza*, "holy table") of the Last Supper and was the location of its ritual re-enactment in the liturgy. Later it acquired a variety of symbolic connotations (e.g. Christ's tomb). The first Christian altars (up to the 4th century AD) were mostly small, wooden, and portable. One later type is simply a translation of this into stone. The solid rectangular stone form that became most common may be derived from the tombs of the martyrs, where it was customary to celebrate the Eucharist, in commemoration of their sacrifice. Also connected with this custom was the practice of containing relics of the martyrs within the altar, or in a crypt beneath.

In Christian times the altar continued to be closely associated with the chief sacred building – the church – though now it was situated inside. The interior location allowed it to be adorned with coverings, and to carry symbols permanently (crosses, candlesticks, etc.), although this development did not occur before the 10th century AD. Often an elaborate canopy (ciborium) was raised over the altar.

In spite of the evidence for some degree of overlap between the pagan and Christian traditions (e.g. in the use of sanctuary sites, iconography), and the possibility that pagan altar structures had some influence on Christian types, there is no evidence for either material or ideological continuity in the case of altars. The former, in any case, would surely have been offensive to Christians. Nevertheless, as the idea of sacrifice inherent in the death of Christ and commemorated in the liturgy became more prominent in Christian thought, there was some convergence of the two traditions, although in Christian practice the sacrifice at the altar is symbolic.

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See also **Religion**

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AMASIS

Potter and painter of the 6th century BC

The potter Amasis first became known when a vase (560 BC) signed with his name *Amasis me poiesen*, ("Amasis made me") was found at Vulci in 1828. In all, eight black-figure vases bearing his signature are known, and their decoration has often been attributed to a single painter known as the Amasis Painter. Amasis' other work as a potter consists of two vases for Lydos and a cup decorated by a red-figure painter. His earliest signature as a painter occurs on a fragmentary band-cup of around 550 BC.

The name Amasis is a Hellenized form of the common Egyptian name A-ahmes. This has resulted in much scholarly debate as to the potter's origins. It has been suggested either that Amasis was an Athenian named after the Egyptian king Amasis (Ahmosis) or that he was not Athenian by birth and that his name was adopted in Ionia or after he came to Athens. Those who support the former hypothesis argue that the potter and the painter are different men; according to the latter view, the potter and painter are identified as the same person.

The Amasis Painter decorated a wide range of shapes – such as belly- and neck-amphorae, *oinochoae* (wine jugs), cups, *lekythoi* (oil flasks), an *alabastron* (perfume vase), an *aryballos* (oil flask), and a tripod *pyxis* (box), as well as small and large plaques. He did not, however, restrict himself to standard types of vases, but explored different variations of certain shapes, as, for example, the cups and the neck amphorae.

The style of the Amasis Painter is usually considered conservative because, even when he adopted new conventions, he did not abandon established forms. The precision of drawing and the ability to work on different scales seem the main characteristics of his work. He also paid attention to the harmony between the shape of the vase and its decoration, as seen on the panel amphorae he decorated.

In the early stages of his career his style reflected the work of the Heidelberg Painter and of the Siana cup painters. From the former he adopted stately processions, garments with fringes, and certain conventions for the rendering of anatomical details, while the latter probably inspired him to adapt a procession of horsemen to panel-amphorae. Moreover, the influence of Cleitias may be seen in his miniature style. The Amasis Painter also shared a number of features with Lydos, such as the preference for symmetry in his compositions as well as certain details in drawing. Although he used the common black-figure floral ornaments above the panels of his scenes, he reinforced the frames by more than one glaze lines, and a vertical band of meander or chevrons. He used bands of upright buds or palmette and lotus to decorate the area above the panels on amphorae.

In the late phase of his career, instead of foldless drapery, he painted flat, angular folds, and women's flesh was drawn in outline, not white on black, the standard convention of his time. Other characteristics of his work include a change in the ornament framing his compositions – the lotuses lose their central leaf – and the occasional omission of the ground line for his figures. The Amasis Painter demonstrated a great interest in the representation of jewellery and armour, especially of shield devices, as well as of architectural elements (fountain houses, column shafts, and a distyle *in antis*), which offered opportunities to represent spatial depths. He often used stippling for the hairy bodies of the satyrs, figures who had features in common with those drawn by Lydos, and for head-hair and beards. The growing understanding of the human body was reflected in his figures, which gesticulated expressively.

The Amasis Painter decorated vases with a wide repertoire of scenes that extend from the Olympian gods and heroes to daily life in Athens and the Attic countryside. Although several of his figures are labelled with painted inscriptions, the scenes are not always easily recognizable. He prefers to fill out his scenes with figures that either participate in the action or act as mere spectators; only occasionally did he concentrate on just the essential elements of the subject. Dionysus is one of his favourite characters, standing between satyrs, maenads, and mortals or supervising the vintage; the hero Heracles is represented being received on Mount Olympus after his death. His mythological scenes are well composed but rarely show the originality of his representation of the divine stables. The Amasis Painter was one of the first to introduce complex everyday scenes on vases – such as a wedding procession, the fullest early pictorial account of an Attic wedding – women at various stages of wool working and weaving, a hunter's return, and a cavalcade. He also demonstrated a consistent inclination to blur the lines between the realms of mortals and immortals or to combine the two.

The vases decorated by the Amasis Painter were widely distributed in the ancient world, as is also the case with other Attic potters and painters: in south Russia (Berezan), Italy and Sicily (Cumae, Capua, Gravisca, Vulci, Orvieto, Chiusi, Cerveteri, and Selinus), North Africa (Naucratis, Cyrene), Cyprus, and Greece (Athens, Eleusis, Tanagra, Perachora, Kavalla, Rhodes, Samos, Delos). Surviving signed works are now held in various museums around the world, including the Museo Gregoriano Etrusco in the Vatican, the Museum of Fine Arts in Boston, the British Museum in London, the Louvre and the Cabinet des Medailles of the Bibliothèque Nationale in Paris, the Martin von Wagner Museum at Würzburg University, and the Getty Museum in Malibu.

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See also **Painting; Pottery**

Biography

Name of a potter and painter of the 6th century BC. He may have been an Athenian named after the Egyptian king Ahmosis; or he may have come to Athens from elsewhere and acquired the name in Ionia. If the former, potter and painter are assumed to be two different men; if the latter, they are one. As potter Amasis signed eight black-figure vases, two other vases, and a cup. The Amasis Painter painted a wide range of scenes on a wide variety of vase shapes.

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AMPHIPOLIS

City in Thrace

The Athenians and their allies under the general Hagnon, son of Nicias, founded Amphipolis in 437/36 BC on the site of the earlier Thracian city of Ennea Odoi ("Nine Ways"). According to Thucydides (4. 102) Hagnon named it Amphipolis because the river Strymon flowed on each side of the city. It was inhabited by a mixed Greek population, including many Ionian settlers from neighbouring cities, and controlled the rich Strymon basin and its hinterland.

Early in the Peloponnesian War (424 BC) it surrendered to the Spartan general Brasidas; two years later Cleon's unsuccessful expedition to recover it ended with his own death as well as Brasidas' in the battle of Amphipolis (422 BC). Although in the Peace of Nicias (421 BC) there was a special provision for Amphipolis's restoration to Athens, Athenian operations in the region, which did not cease until the time of Philip II of Macedon, indicate that the city was not totally under Athenian control.

The economy of Amphipolis did not depend solely on the rural population which cultivated the Strymon valley, but also on merchants and craftsmen. The city's prosperity is reflected in a lavish series of coins after the Peace of Nicias. Inscriptions provide information about the administrative organization of the city, and the ways in which it controlled trade and protected the life and property of its citizens through its institutions and special officials.

In 357 BC Philip II conquered Amphipolis and established a Macedonian garrison. The city became a royal mint as well as the base for Macedonian operations to the east of the Strymon. In 334 BC the fleet of Alexander the Great set sail on its Asiatic campaign from the harbour of Amphipolis. Moreover, the importance of the city at this period is indicated by Alexander's decision to make Amphipolis one of the six major cult centres of his empire – the others being Delos, Delphi, Dodona, Dion, and Kyrros – and to build a magnificent temple of Artemis Tauropolos, a plan which was never realized.

After Alexander's death his mother Olympias issued a decree by which the garrison of Amphipolis was given to Cassander. It was here that Alexander's wife Roxane and his son and heir Alexander IV were exiled. The strategic location of the city, commanding the bridge over the Strymon, and its hinterland, rich in agricultural products, precious metals (gold and silver), and timber, ensured its prosperity into Hellenistic and Roman times and it became a strong military, economic, and cosmopolitan centre.

Although archaeological surveys in the area of Amphipolis were undertaken in the 19th century, it was not until 1956 that systematic excavations commenced, bringing important finds to light. A large part of the Classical city wall was revealed. Seven gates provided access to the city, while round towers in elevated positions along the wall controlled all movements on both the cast and west banks of the river. The largest and strongest gate was the so-called Bridge Gate, mentioned by Thucydides (4. 103, 108) in connection with the battle between Cleon and Brasidas in 422 BC. The fortifications of the city underwent repeated repairs in Roman and Byzantine times.

In addition to the city walls, an inner fortification wall encircled the acropolis of Amphipolis, which was located on a hill at the most prominent part of the site. At the west end of the acropolis and inside its Classical enceinte, a house of the 4th century BC was excavated, indicating the existence of a Classical suburb in this area, which continued to be inhabited in the Hellenistic period. Moreover, a Hellenistic house of the 2nd century BC with painted walls recalling the First Pompeian style was found in the south sector of Amphipolis.

The first large public building to be identified from epigraphic evidence was the gymnasium. It was located in the southeast sector of the city, between the inner and the outer walls, and next to a narrow water channel, indispensable to the function of the building. It was built by the Hellenistic period and remained in use until the early imperial period, when it was probably destroyed by a fire. An important inscription of the 1st century BC provides information about the education of youths, the society of Amphipolis, and its topography, mentioning an agora, workshops, a road network, and a theatre.

The cult of the king of Thrace, Rhesus, son of Eion and Cleio, already attested in Homer, is the earliest known cult at Amphipolis. In addition, there are sanctuaries of the muse Clio (first half of 4th century BC), of Attis, and a Thesmophorion or Nymphaeum (5th century BC) outside the north city wall, and an open-air structure with niches for the cult of Attis and Cybele, which became popular in Hellenistic and Roman times.

Classical and Hellenistic cemeteries have been discovered outside the city walls. Numerous graves of various types have yielded a vast quantity of grave offerings, such as gold jewellery, terracotta figurines, pottery, bronze objects, and grave stelae. An impressive example of burial sculpture of the 4th century BC is the Monument of the Lion, on the west side of the river Strymon. It was set up in honour of an Amphipolitan citizen,

probably Laomedon, one of Alexander's admirals. Today it stands restored on a high podium at the spot where it was found.

After the battle of Pydna (168 BC) Amphipolis became the capital of one of the four administrative districts (*merides*) into which Macedonia was divided by the Romans in order to achieve the break-up of its political unity. Although in the mid-1st century BC Amphipolis suffered invasions by Thracian tribes, which resulted in the destruction of its buildings, both the ancient literary sources and the archaeological evidence reveal that the city flourished as a commercial and artistic centre as well as a mint down to the final years of the Roman empire. With the support of Roman emperors, especially Augustus and Hadrian, Amphipolis remained one of the most important urban centres in Macedonia, as is reflected in its monumental buildings with mosaic floors and mural paintings.

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ANATOLIA

In geographical terms Anatolia (otherwise Asia Minor) occupies the territory of Turkey between the Aegean Sea and the Euphrates river. The western and southern coastal areas were part of the Mediterranean world. In the Graeco-Roman period several regions existed within Anatolia, corresponding to separate languages, cultures, and religious beliefs: Bithynia, Cilicia, Cappadocia, Galatia, Paphlagonia, and Pontus.

Anatolia has always been a crossroads of different peoples and cultures, and it was dominated at different times by different political and cultural entities. The Hittite empire was the major power in Anatolia in the Late Bronze Age but its collapse in *c.*1200 BC allowed new cultures to rise. At the beginning of the Iron Age neo-Hittite states were established in the southeast, and at the turn of the 9th century BC the Urartians emerged as a leading power in the east and northeast of the region. Both the Hittites and Urartians frequently clashed with their Assyrian neighbours. However, political difficulties in Anatolia never prevented close cultural contacts and the exchange of artistic ideas.

Greeks from mainland Greece started to settle the western shores of Anatolia and the offshore islands from about the 11th century BC onwards. Aeolians founded cities between the Troad and the gulf of Smyrna; the Dorians established six major cities in Caria and on the islands of Rhodes and Cos. The Ionians, who arrived in much greater numbers than either of these, established themselves between the two. The culture created together by these three peoples is known as East Greek. The 12 Ionian cities – Chios, Samos, Phocaea, Clazomenae, Erythrae, Teos, Lebedos, Colophon, Ephesus, Priene, Myus, and Miletus – were much the most advanced. Smyrna, in the north of Ionia, was in origin an Aeolian town, but at an early date it was captured by Ionians from Colophon.

In the 8th century BC the situation in Anatolia changed once again. The Phrygians emerged as a major political power, with their capital at Gordion. Relations between Phrygians and Greeks were close. Already in the 8th century BC the Phrygian king Midas was married to the daughter of Agamemnon, the king of Aeolian Cyme. This Midas was most probably the same one who sent a dedication (a throne) to the Greek sanctuary in Delphi. Decoration on some Greek pottery, bronze fibulae, cauldrons, bronze belts, etc. demonstrates Phrygian influence on Greek culture as early as the 8th century BC. Phrygia lost its dominant position after the Cimmerian raids of *c.*696 BC and became part of the Lydian empire, the dominant power from the mid-7th century BC having its capital at Sardis. The Ionian contribution to the creation of Lydian culture is witnessed in dress and in architecture (columns and relief panels). In Lydia and Phrygia buildings were decorated and protected by clay relief revetments, often decorated in a Greek style and depicting Greek mythological scenes. At the same time, Greeks took to worshipping the Anatolian goddess whom they knew as Cybele. Lydian rulers were hostile to Ionian and other cities. Alyattes destroyed Smyrna; Croesus subdued others but sent gifts to the temples in Delphi and Ephesus. This was a time when very close cultural links were forged between Lydia and the Ionians, bringing Graeco-Lydian art into existence. Lydian court life was more Greek than oriental in its physical aspects.

The Lydians were conquered by the Persians in 547/46 BC. For the next two centuries, until the conquests of Alexander the Great in 334 BC, this new Persian empire held mastery over Anatolia and the whole of the Near East, including the Greek cities of Anatolia. Many Ionians fled Persian conquest to establish colonies in the west and the east (around the Black Sea). Indeed the creation of Ionian colonies was already under way from the second half of the 7th century BC when Lydian pressure started to make itself felt.

Achaemenid art is a unique phenomenon. Monarchs started to create a court culture, bringing together artists from all corners of their huge domains. These artists, architects, and masons were employed by the king and executed work according to his tastes and wishes. During the construction of the palace in Susa, Darius recorded details of the programme of work: the ornamentation of the walls was brought from Ionia; the captives who worked the stone were Ionians and Sardians; Sardians and Egyptians collaborated on the woodwork; Babylonians on the brickwork; Medes and Egyptians on the decoration of walls and on goldsmiths' work. The sources of the materials used are also given: gold came from Sardis and Bactria; lapis lazuli and cornelian from Sogdiana; turquoise from Chorasmia; silver, ebony, and copper from Egypt; ivory from Ethiopia, India, and Arachosia; cedars of Lebanon were carried to Babylon by Assyrians, and thence to Susa by Carians

and Ionians. The Ionian contribution to Achaemenid royal culture was considerable. Although Persian buildings, designed more for effect and ceremonial than for living, were inspired by Mesopotamia, masons were brought from Ionia and Lydia. Greek architectural orders and techniques were introduced to Persia. Nearly all the buildings at Pasargadae were built by Ionians. Persian sculpture reveals Greek influence and practice in the treatment of drapery; seals show Greek craftsmanship, as do the wall paintings from Gordion. The tomb monuments at Xanthus are decorated with stone reliefs executed in Ionian style.

The Persian empire was divided into provinces (satrapies). Usually, each conquered country formed a separate satrapy, sometimes with a local family as nominal rulers. The provincial capitals housed a Persian civil service and garrison. The king introduced a system of gift-giving and *tributari*.

The Ionian Greeks were supported by Athenians in their revolt of 499 BC. This led to Persian–Athenian conflict. In 492 BC Darius sent a force against northern Greece and in 490 BC to central Greece. Ten years later Xerxes marched against Greece and sacked Athens. By the mid-5th century BC the Greek cities of the eastern Aegean were free, under the hegemony of Athens. After the Persian Wars many Persian ideas filtered through to Athens. Persian metalwork had considerable influence on Athenian pottery – rhyton (drinking-horn) cups are an example. The same can be seen in Greek seals, where the Graeco-Persian style flourished in Anatolia, reaching mainland Greece and spreading throughout the Greek colonial world.

Alexander the Great put an end to the Achaemenid empire. He burned Persepolis and liberated Greeks, including artists and intellectuals who had been persecuted by the Persians. The establishment of Hellenistic kingdoms on the ruins of the Persian empire opened the way to further penetration by and of Greek culture. Greeks followed Alexander the Great to Anatolia and the Near East, establishing new cities and new cultural centres, but at the same time absorbing features of local cultures to create new and cosmopolitan traditions.

The Hellenistic period in Anatolia brought fresh military difficulties. In 302 BC Lysimachus, a Macedonian from Pella, invaded Asia Minor, fought against Antigonus, and secured victory for Seleucus in the battle of Ipsus (301 BC). Most of Asia Minor passed to him, and he proved a financially rapacious ruler until his defeat by Seleucus in 281 BC. Thereafter the region was in the hands of the Seleucids who, from the outset, continued Achaemenid institutional practice in the army and administration and in their colonizing policies. One of their capitals was at Sardis. By the peace of Apamea, negotiated between Antiochus III and Rome in 188 BC, the Seleucids relinquished their possessions north of the Taurus mountains, retaining Pamphylia and Cilicia.

The Mithridates family ruled Pontus from 302 BC. Mithridates IV established good relations with Cappadocia and Rome (whose ally, Pergamum, he helped in a war against Bithynia). His successor invaded Phrygia and Cappadocia, maintained friendly relations with Greece, and was honoured as a benefactor of Athens and Delos. Mithridates VI Eupator was the most famous king of Pontus, and Rome's most dangerous enemy in the 1st century BC. He conquered the whole of the Black Sea and annexed Bithynia and Cappadocia. During the First Mithridatic War against Rome (89–85 BC) in Asia his army swept all before it, and he ordered the massacre of Romans and Italians living there. He was welcomed in Athens and won over most of Greece, but the Roman response under Sulla (87 BC) brought him defeat; Athens was captured, and the war taken to Asia. Peace was arranged and Mithridates lived to fight another day: to further defeat in the Third Mithridatic War in 63 BC and an assisted suicide at the sword of a bodyguard when his son revolted against him prior to further alleged foreign exploits.

The culture of Hellenistic Anatolia flourished. Troy IX was a Hellenistic city furnished with temples, theatre, odeum, *bouleuterion* (council chamber) etc. Pergamum was a very important city, to the safety of whose fortress Alexander the Great's successor Lysimachus entrusted part of his treasure – 9000 talents. During the reign of Attalus I Pergamum became a wealthy and powerful state and the city a worthy royal capital. Its ruler could indulge in patronage of the arts, literature, and philosophy, and gain prestige and pleasure with his horses and chariots at Olympia and other Greek centres. Under Eumenes II the city achieved architectural eminence: the defended area of the acropolis was enlarged so as to contain a further large gymnasium and a second agora, the acropolis itself was built up on a series of grand arched terraces, and an advanced high-pressure water system put in place. The best possible use was made of the natural shape of the land to provide a dazzling backcloth to the expanding city below. The royal palace, barracks, and arsenal crowned the summit; lower down a library, second only to Alexandria's, overlooked the temple of Athena; on a lower level stood an altar to Zens, 12 m high, which provided a rich opportunity for the local school of sculpture to portray the fight of the gods against the giants; still lower were the agora, and then a great terrace on arches, built into the rock, from which the theatre climbed up the hillside. In 130 BC the last member of the Attalid dynasty bequeathed this prosperous state to Rome and it became part of the province of Asia.

Ephesus and Miletus reverted to being centres of Hellenic culture in Asia Minor once they had recovered from Persian rule. Alexander the Great rebuilt Miletus. The temple of Artemis at Ephesus and the new marble temple of Apollo in Didyma were among the most impressive buildings anywhere in the Greek world.

Roman Asia, the jewel of the empire, comprised the territories of Mysia, Lydia, Pisidia, and Phrygia (Rhodes was added subsequently) along the western coast of Asia Minor. It was stable (the borders remained largely unchanged until the late 3rd century AD) and prosperous, and Hellenic influence remained strong. From 27 BC the province was under the authority of the Senate, administered by a proconsul based in either Pergamum or Ephesus. Administration varied from area to area, and many of the cities that had enjoyed a fair measure of autonomy under the Attalids retained it, despite their inclusion in the province. The province's economic strength was due mainly to its position astride the east–west trade routes, and that strength attracted migrants. Ports such as Smyrna, Miletus, and Rhodes flourished on the trade of foreign vessels passing through, and the cities invested their wealth in their own beautification. Greek notions of self-determination persisted in the cities, an echo of the polis. Schools of philosophy, education, and medicine functioned in Smyrna, Ephesus, and Pergamum; and Pergamum emerged as a centre for eastern

deities such as Asclepius. The acceptance of older eastern gods and the toleration of newer ones was another visible link to the absorbent nature of Greek civilization. This was the Roman province in which Christianity (initially, another cultural import assimilated from the east) and the early Church prospered.

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ANATOMY AND PHYSIOLOGY

Repeated observations of human victims of warfare and accidents, and likewise of animal victims of hunting and sacrifice, probably underlie the remarkable familiarity with gross anatomy displayed in Greek literature from the *Iliad* to the early 5th century BC. Many Homeric descriptions of woundings bear witness to a precise knowledge of vulnerable points in the torso, notably of the anatomical disposition of the principal organs and bones, and of the likely consequences of lesions to each.

Only with the systematic use of dissection did Greek anatomical knowledge advance substantially beyond the level reflected in Homeric epic. A controversial passage in a 4th-century AD commentary on Plato's *Timaeus* claims that Alcmaeon of Croton (5th century BC) first dared to cut out the eye and discovered its communication with the brain. Along with reports that Alcmaeon knew of the nasal passages and of certain features of the vascular system, this has led some modern scholars to conclude that Alcmaeon was the first to dissect animals for scientific purposes. Similar claims have been made for Democritus. There is, however, no conclusive evidence to support such inferences. Although several Presocratics displayed a keen interest in anatomical structures and in physiological processes such as perception, respiration, and reproduction, they clearly lacked close familiarity with the physical appearance and configuration of the internal structures they describe. According to Diogenes of Apollonia's extensive description (preserved by Aristotle) of the vascular system, for example, two independent networks of vessels (*phlebes*) are distributed throughout the body, one originating in the liver and serving the right side of the body, the other originating in the spleen and serving the left. The bilateral symmetry displayed by the external structure of the body here is apparently assumed to have an internal counterpart.

Hippocratic writings offer many anatomical observations (e.g. *On Places in a Human Being, On Fleshes, On Fractures, On Joints, Epidemics*, the pastiche known as *On the Nature of Bones*, and the Hellenistic treatise *On the Heart*). But no systematic Hippocratic treatment of anatomy as such is extant; a 27-line work of disputed date, *On Anatomy* – the shortest text in the vast Hippocratic Corpus – merely enumerates major internal parts of the human torso and summarizes their configuration. Diocles of Carystus, to whom Galen attributes the earliest treatise on anatomy, may have observed the womb in dissected mules, but there is no convincing evidence that he dissected human cadavers.

Aristotle, who occasionally refers to his lost work *Dissections* (*Anatomai*), dissected and vivisected various animals in the course of extensive zoological investigations that covered the lives, reproductive activities, and structures of well over 500 genera. He frequently referred to the human body, too, providing detailed observations on the vascular system and the internal topography of the body, particularly in his *History of Animals*. He acknowledged, however, that he relied on animal anatomy to make inferences about human anatomy and physiology (e.g. *History of Animals*, 1. 16. 494b21–4) and, like Empedocles and others, he made the heart, not the head or the brain, the centre of cognitive activity (whereas Alcmaeon, Democritus, Diogenes, the Hippocratic author of *On Sacred Disease*, and Plato had recognized the central role of the brain).

Spectacular advances in anatomical knowledge were made in the early 3rd century BC, when Herophilus and Erasistratus became the first – and apparently the last – ancient physicians to conduct systematic dissections of human cadavers. According to credible ancient sources they also performed vivisectory experiments on humans, probably on condemned criminals handed over to them by kings in the name of future benefits for all of humanity (Celsus, *Medicina*, proem. 23–26). Their discovery of the nerves, the four coats of the eye, the ventricles of the brain, the ventricles of the heart, the heart valves, the ovaries, numerous vascular structures, etc. had an enduring impact on the history of European anatomy and physiology. Herophilus and Erasistratus attempted not only to describe parts of the body but also to account for their functions on

the basis of dissection and vivisectory experiments. They diligently explored respiration, digestion, the pulse, reproduction, and sensory and muscular activity.

Not all ancient physicians agreed, however, that physiological explanations, even if discovered or confirmed by dissections, are necessary to clinical efficacy. The Hellenistic Empiricist "school" by and large rejected physiological investigation and systematic dissection, claiming that the accumulation and transmission of clinical observations, notably of observed instances of successful treatments (even when the success remained unexplained) generally sufficed. Numerous later rival physiological and anatomical treatises, some known mainly through Galen, bear witness, however, to the continuing importance of anatomy and physiology. Though advocating divergent doctrines, Asclepiades of Bithynia, Archigenes, Soranus, and Rufus of Ephesus presented wide-ranging physiological theories based on anatomical beliefs. Furthermore, extensive dissections of animals were conducted in the 2nd century by Marinus, Quintus of Rome, Satyrus, Numisianus, Pelops, and Galen.

Ancient Greek anatomy and physiology culminated in Galen, whose authority went virtually unchallenged for more than a millennium. Aware of the remarkable scientific results which Herophilus and Erasistratus had achieved by means of human dissection, Galen at times wistfully conceded that their access to human cadavers had enabled them to make observations which eluded him, even though his repeated, meticulous dissections of – and vivisectory experiments on – apes, monkeys, pigs, goats, oxen, sheep, mules, horses, donkeys, mice, and other animals allowed him to correct the accounts of many predecessors. To some extent Galen's anatomy is characterized by the superimposition of the soft parts of apes upon the human skeleton, despite his frequent insistence that a dissecting physician should try to choose animals that most closely resemble human beings. He presented his anatomy most fully in his monumental *On Anatomical Procedures* 1–15 (of which more than six books are extant only in a 9th-century Arabic translation). Several shorter anatomical treatises also survive (e.g. *Anatomy of the Womb, Anatomy of the Nerves, Anatomy of Arteries and Veins*, and *Anatomy of Muscles*).

Galen insisted that anatomy is a prelude not only to surgery but also to physiology. His comprehensive commitment to a teleological explanation of every structure, part, activity, and susceptibility of the body is visible throughout his voluminous anatomical and physiological writings. He fused his expropriations of the theories of several precursors into a coherent teleological model, in which all major physiological activities – respiration, digestion, heartbeat and pulsation, sensation and perception, voluntary and involuntary movement, locomotion, reproduction – are interdependent and interactive. He adapted the four-humour theory of the Hippocratic author of *On the Nature of a Human Being*, introducing more systematic, elaborate correlations between the primary qualities (hot, cold, wet, dry), the elements (earth, air, fire, water), the humours, the four seasons, character types or "constitutions", and stages of life. Inspired by the Platonic theory of a tripartite soul, Galen argued that there are three souls ruling yet serving the body, each manifesting itself through a distinctive faculty (*dynamis*, i.e. a power to act or to be acted upon). In the brain resides the "psychic faculty" which, presiding over reason and thought, renders sensation, perception, and voluntary motion possible. In the heart resides the "vital faculty", responsible *inter cilia* for our emotions. And in the liver dwells the "natural faculty" responsible for nutrition. In *On Natural Facuities*, which Galen recommended to his readers as a sequel to *On Anatomical Procedures*, he added subsidiary faculties, including the "attractive faculty" (e.g. to explain how all parts of the body "attract" nutriment from the blood), the "retentive faculty" to explain how substances can remain in any given place within the body, the "alterative faculty" (e.g. to account for the conversion of food into blood), the "expulsive faculty" to explain secretions and excretions, etc.

A further central feature of Galen's physiology is his theory of innate heat. A flame of life inside the body, innate heat needs air to sustain itself while being tempered continuously by cooler, freshly inhaled air. Some Hippocratics (e.g. On *Fleshes*, 2) and Plato had recognized that bodily heat is essential to life, but for this feature of his physiology Galen seems most indebted to Aristotle. Against those who claimed that the body upon birth acquires heat from without (e.g. Praxagoras, Erasistratus), Galen endorsed the view of Aristotle and the Pneumatists, arguing that we are born with this natural heat, which is the first instrument of the soul. He further agreed with Aristotle that the innate heat is purest and most intense in the heart, and he added that the arteries distribute heat (along with blood and *pneuma* (breath), as Herophilus had claimed) throughout the body.

From Herophilus, Galen also took over the distinction between sensory and motor nerves, and from Erasistratus – against whom Galen wrote more than one fiercely polemical treatise – the influential distinction between "psychic *pneuma*" (in the nerves) and "vital *pneuma*" (in the arteries). According to Galen, the spongy flesh of the lungs acts upon the air we inhale, converting it into a subtler product, *pneuma*. This refined breath passes through very fine "pores" into branches of the pulmonary vein (or "venous artery", in Galen's conception) and thence is "attracted", with blood, by the attractive faculty into the left ventricle of the heart, where it encounters more hot blood and becomes metamorphosed into life-giving, i.e. "vital" *pneuma*. When this cardiac ventricle contracts, blood charged with "vital" *pneuma* is "attracted" into the aorta and thence into the entire arterial network. After the carotid arteries have distributed vital *pneuma* to the brain, the brain transforms it into "psychic *pneuma*", in part by using air drawn into the cerebral ventricles by way of the nostrils and channels extended into the olfactory bulbs. From the brain psychic *pneuma* – subdivided into sensory and kinetic *pneuma* – flows through imperceptible ducts inside the sensory and motor nerves, enabling sensation and voluntary muscle movements. Medieval Galenists described a third kind of *pneuma*: "natural *pneuma*" produced in the liver, transported through the veins, and functioning as the instrument of the "vegetative" soul. In the vast corpus of Galen's extant texts there is, however, only a single, hypothetical allusion to "natural pneuma" (*Method of Healing*, 12. 5).

Perhaps nowhere is Galen's commitment to teleology expressed more emphatically than in his discussion of reproduction in his major physiological treatise *On the Usefulness of the Parts* (books 14–15), in which he once again fuses the views of many predecessors, even as he criticizes them. With "astonishing skill" Nature has done all she could to make her mortal work – the human body – immortal through reproduction,

endowing humans with perfect anatomical instruments for conception, a faculty joined to these instruments to produce pleasure, and a "vegetative soul" that has an irrepressible desire to use the instruments of conception. Being essential to human reproduction, gender-specific anatomical features display Nature's amazing providence: the uterus is bicameral, its hotter right chamber being for the conception and gestation of males, and the colder left chamber for female offspring. To traditional polarities used at least since the Presocratics and Hippocratics to distinguish between female and male – left-right, colder-hotter, weaker-stronger, less perfect and more perfect – Galen added the influential polarity introverted – extroverted: because the female foetus develops in the colder left womb, her generative parts remain inside her body, whereas the male, developing more fully in the hotter right uterus, has extroverted reproductive parts. In support of these in part archaic polarities Galen mustered the formidable weaponry of his meticulous dissections, of his elaborate physiological system, and of his all-encompassing teleology, thereby rendering the old anatomy and physiology scientifically rejuvenated.

Many currents of pre-Galenic anatomy and physiology thus were appropriated and selectively transformed by Galen into an authoritative new medical system which, by and large, was not superseded in Europe and the Near East until the early modern period. Byzantine writers excerpted, paraphrased, and adapted his works on anatomy and physiology, while scholars in Baghdad translated them into Syriac and Arabic, especially in the 9th century, thus ensuring that Galen's views became the almost undisputed norm until systematic human dissection was resumed in the early Renaissance.

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See also **Health; Medicine**

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ANAXAGORAS *c.*500–428 BC

Philosopher

Anaxagoras was born in the Ionian city of Clazomenae. After establishing himself as a philosopher there, perhaps by giving lectures or classes, he seems to have come to the attention of Themistocles, who invited him to Athens, where he lived from some time after 470 BC until he was exiled in the late 430s BC. His expulsion was due partly to his friendship with Pericles, and partly to his scientific views, which took no account of the traditional gods in explaining the nature of the heavens. He spent his last few years in Lampsacus.

Although several works are ascribed to him, he probably wrote only one, but it may well have undergone revisions during the course of his stay in Athens. The fame of this book was guaranteed by the reference to it in Plato's *Apology*, where Socrates says that it can be bought in the Agora for a drachma. Elsewhere in Plato's dialogues, most notably in the *Phaedo*, Socrates says that he was disappointed when he read it because Anaxagoras explains everything, including the nature of man, with a reference to what today we would call its chemical make-up, which in turn is governed by *nous*. This is the force that first set the universe in motion and which still determines the mechanism of our changing universe, from the large-scale phenomena of the heavens to (borrowing a term from modern physics that derives from the atomists contemporary with Anaxagoras) the subatomic arrangement of every object; *nous* is often translated as "mind" or "intelligence", and reasonably so, given Plato's punning on the "mindlessness" of Anaxagoras' use of this word. As is clear from Socrates' several attempts to distance himself from Anaxagoras, as well as from Aristophanes' broad satire of Socrates in the *Clouds*, Anaxagoras' contemporaries understood his *nous* either as a new divinity to rival Zeus in

his stewardship of the heavens or as a mechanistic (and hence atheistic) cosmic principle. Since Anaxagoras thought that *nous* was present only in some things, presumably animals and plants, the true nature of his *nous* lies somewhere between the anthropomorphic (and somewhat unpredictable) Zeus and what we might call the laws of Nature.

Although it is tempting to think of *nous* as non-corporeal, Anaxagoras' own words of description are merely that it is the "lightest and purest of all things", and is the only thing capable of existing in a pure form, with no admixture of normal matter. As such, it is not only self-ruling, it also rules all else. In the universe as a whole it works largely by setting things into a vortex that separates heavier objects from lighter ones, pushing the former into the centre, much as a whirlpool can drive pebbles into its middle. Thus the "Socrates" in the *Clouds*, in fact an amalgam of several sophists and Presocratics, presents as a new divinity a pot called *dinos* in Greek, which puns on Zeus/Dios and *dine*, the vortex responsible for the formation of all the heavenly bodies in Anaxagoras' theory.

Just as the vortex stirs things up so that like objects have the opportunity to unite with each other, so too does the breakdown of food during digestion allow like to join with like. (The attraction of like to like was a common belief raised to a scientific principle by many Presocratics.) Anaxagoras, that is, thought that the building blocks of animals (blood, flesh, bone, hair, etc.) were contained within the food they consumed, for, as he says, "how could hair come from not-hair and flesh from not-flesh?"

Much of the first part of his book was devoted to explaining the microscopic nature of matter. Since nothing can come from nothing, there must be some basic unchanging material. And since visible matter takes many forms, few if any of which are permanent, this bedrock of matter must itself come in different, but at this level unchanging, forms, which Anaxagoras metaphorically called "seeds". Thus far, Anaxagoras may be compared to the first atomists Leucippus and Democritus; but his explanation of seeds differed markedly from their atoms. Each seed is indestructible, with fixed shape, colour, and savour. Also fixed is the ration of *dynameis* (roughly "powers" or "qualities") contained within each seed, which tend to exist in polar pairs. These *dynameis* are of an unknown number, but the chief ones named by Anaxagoras are hot/cold, dark/light, heavy/light, and moist/dry. Since each seed contains a fixed amount of *dynameis*, its nature is determined by the combination of the various ratios. Thus, a stone has more heavy than light (both imagined to exist in the same seed simultaneously) and more dry than moist. The facts of nutrition can accordingly be explained by, for example, bread's containing seeds too small to be seen of flesh, bone, hair, etc. The scientific principle at work here – of comprehending the unseen by means of appearances – was expressed by Anaxagoras himself in the form "phenomena are a view of the unseen".

Since, roughly speaking, any object in the cosmos is a mixture just as is the cosmos itself, and since one thing (that is, an object characterized by a certain ratio of qualities) can break down and "become" another, Anaxagoras also deduced that "everything is in everything". For these and similarly scientific attempts to explain matter, change, and causation, Anaxagoras was compared by Aristotle to a sober man among stammerers. He and Democritus were credited by Aristotle and others with elegant and comprehensive theories that could explain both large- and small-scale phenomena.

DAVID SIDER

Biography

Born in Clazomenae *c.*500 BC, Anaxagoras moved to Athens after 470 and remained there until exiled in the 430s. He died in Lampsacus in 428 BC. He wrote (probably) just one book, of which substantial fragments are preserved by Simplicius. It is largely concerned with the nature of matter, which he sees as being governed by a promordial *nous*.

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ANAXIMANDER

Philosopher of the 6th century BC

Anaximander of Miletus was active in the first half of the 6th century BC (the date of his death is given by Diogenes Laertius as 547/46 BC). He was said to have been a pupil and kinsman of Thales of Miletus, and is included by ancient historians of philosophy among the group of early thinkers who tried to explain the world on the basis of a single material substance. No work of his survives. For our knowledge of his ideas we rely entirely on reports given by later writers from Aristotle onwards; most of the available information comes from authors writing in the 1st century AD or later, and in these cases it is likely that they are relying on general histories of philosophy and encyclopaedias that go back ultimately to the work of Aristotle's successors (especially Theophrastus).

According to Anaximander, the originative substance was the *apeiron*, a term whose precise meaning is not entirely clear; it might mean either infinite or indeterminate, though since Anaximander believed that his originative substance had both of these qualities the uncertainty does not affect the interpretation of his ideas. The creation of the cosmos came about by the separating out of the opposites from the *apeiron*, in such a way as to achieve an overall balance; the details of this process are obscured by the tendency of our sources to assimilate

Anaximander's system to one of the cosmological views of their own time (so making the *apeiron* a mixture or an intermediate substance). The *apeiron* surrounds and controls the cosmos, and is eternal, unageing, and perhaps divine. Anaximander apparently produced something like a complete cosmology. He believed that the earth was cylindrical, its depth a third of its width, and that it was supported by nothing, but stayed where it was because it was equidistant from everything else. The heavenly bodies, he believed, were rings of fire, enclosed except at points where there were holes through which the fire showed through. He claimed that the ring of the sun was 27 times, and the ring of the moon 18 times, the size of the earth. Eclipses were caused when the holes were blocked up (though we are not told what causes the holes to get blocked up). He explained rain as arising from moisture that evaporates under the influence of the sun, and thunder as the wind, enclosed within clouds, breaking out. He seems to have believed also that the earth was drying out (perhaps impressed by the receding coastline in Ionia). Reports of his views on the origins of life are intriguing, though enigmatic. He apparently believed that life originated in moisture, and that the first creatures came into being enclosed in a bark-like shell, which they subsequently shed. In the case of human beings, he argued that, since the human infant is incapable of looking after itself for some years, the first people must have come to maturity under the protection of some other creature; they grew to puberty, he claimed, within fish-like animals, from which they emerged in adulthood when they were old enough to be self-sufficient.

It is, however, his production of the first known Greek map that most interests the ancient sources. Maps had, of course, been known to the ancient societies of Mesopotamia for centuries, and it is not surprising that it was in a trading city like Miletus that the concept was first introduced to Greece. There is another intriguing report that Anaximander invented the gnomon (a kind of simple sundial), which he used to mark solstices and equinoxes, and that he set one up in Sparta. He did not invent the gnomon, in fact, because it already had a long history (indeed, Herodotus attributes its invention to the Babylonians), and this may be another case of Anaximander's introducing foreign ideas to Greece. He was the first known Greek to attempt to produce a complete, comprehensive, and rational account of the world and its development, including the early history of the human race.

Anaximander is also the first recorded writer of Greek prose. He is said to have written a number of books, and an account of his cosmology given by Simplicius (writing in the 6th century AD) in his commentary on Aristotle's *Physics* (24. 13) may contain a quotation from one of them: "that from which existing things have their coming-into-being is also that into which they are destroyed according to necessity; for they pay penalty and retribution to one another for their injustice, according to the assessment of time" (as he puts it in these rather poetic words). Unfortunately, it is impossible to say for certain where the quotation begins and where it ends, but it is probable that in this passage is contained the earliest surviving piece of Greek prose.

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See also **Cartography; Cosmology**

Biography

Active in the first half of the 6th century BC, Anaximander of Miletus is said to have been a pupil of Thales of Miletus. None of his writings survive; but we learn from later writers that he tried to account for the world on the basis of a single material substance which he called the *apeiron* (the infinite or indeterminate). He also was the first known Greek to draw a map. He died *c.*547 BC.

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ANCESTOR WORSHIP

The tendency has been noted (Antonaccio, 1995, p. 268; cf. Humphreys and King 1981, p. 267) that, where political power is fluid and personal, the focus, on occasions of death, impels towards the intense interaction of the living; on the other hand, where the base of power is more stable, resting with a historically grounded social group, care of the dead becomes the focus. There is evidence of both with the Greeks, reflecting the belief in the power of the dead over the living and the inconstancy of political structures.

Mycenaean burial sites, where the norm was collective burial in chamber tombs or tholoi, suggest that certain tombs were singled out for special treatment, but that the dead were not worshipped. The evidence indicates instead that veneration of the deceased was not practised, since tombs were often re-entered, and earlier relics and grave goods swept aside or removed. Those ancestors who drew continued interest and with whom claims of connection were maintained were usually claimed as "heroes" and their personal histories and the status or power ascribed to them after death tended to be reinterpreted according to the needs of the descendants. There is no consistency in the accounts of the births, lives, or ends of these glorified ancestors (heroes sometimes disappear rather than die), but they were believed to have lived mortal, if extraordinary, lives.

Conviction held that ancestors reigned over present events. Patrons and guardians to their progeny, they could grant success in diverse endeavours or curse them with disaster – barrenness, disease, pestilence, or military failure. Thus the dead were rarely ignored, even where not worshipped. They were remembered, feared, and invoked by the living through prayer, votive dedication, animal (and in some cases even human) sacrifice, and commemorated in poetry, in song, and at athletic events. The variety of "heroic" ancestry grew over time until, by the late Classical period, athletes, founders of colonies, and even ordinary folk came to be "heroized" as supermortal.

Links with the ancestral past tended to be broken on the mainland during the Dark Ages except in the colonies where Homeric tradition was preserved, and later reintroduced to the

mainland during the "renaissance" of the late 8th century BC. The close of the Dark Ages was accompanied by a revival of enthusiasm for the past, born partly of the nostalgia for lost ancestral links, but also as a matter of expedience, as heroic personifications were adopted to lend legitimacy and historical grounding and to provide patronage for the newly founded city or polis. Ancestral claims could also be strategically deployed to reinforce the power of an elite now threatened by the emergent polis and the levelling tendencies of democracy. The "ancestral yearning" (Snodgrass, 1971, pp. 195–96) of this period is witnessed in art, literature, and ceremonial ritual. Formal hero cult was intense during this period. Tomb cult, one of its manifestations, is connected to the loss of stability in social structures and the struggle for the control of land during the transition from pastoralism to an agricultural society. Noteworthy ancestry could aid in the project of legitimizing and stabilizing the power of certain families, connecting them with an epoch of excellence and lending authenticity to claims of landownership. Tomb cult offerings, though largely private and unofficial, also provided a personal connection with the ancient inhabitants of a place, securing the protection and the favour of ancestral powers and appeasing the anonymous hostile forces thought to dwell therein. Tomb cult peaked in the 8th century BC and continued into the Classical period.

During the late Iron Age trade and prosperity intensified, creating greater social and cultural complexity. Where the region favoured social interaction among the elites, claims of ancestry remained a matter of prestige and burial custom stayed competitive. Teams of asses or horses, armour and weaponry, and a variety of luxury imports were buried with the deceased and there is evidence, at the grave site, of intense ceremonial activity among the living. However, as configurations of power tended towards the personal and fluid, claims of archaic ancestry declined, as did extravagance of burial custom once sanctuaries came to be employed as the arena for communal and regional competitions. In the more isolated regions, however, the ancestral claims of older families were probably maintained.

The well-established polis continued the practice of corporate worship of the ancestral spirits. This provided a unity to its worshipping community, though it could also have a divisive effect since it tended to serve the power of the aristocrats. Some tomb cults were ongoing, monuments being claimed by later generations, but generally they were of short duration and limited scope. As political power came to depend on the redistribution of wealth and on the charismatic draw of individuals, kinship claims were no longer the necessary base of power. During this period there is evidence of a continuing concern for the ancestral past. The dead continue to be related to one another, graves being connected by mounds or tumuli and enclosed within walls for protection against encroachment by expanding settlement.

Scholars generally agree that the antiquity of the Greek clan or extended family (*genos*) over centuries is a myth without foundation (Cavanaugh, 1991, pp. 100, 103; Antonaccio, 1995, pp. 252–53, 264). Even the most prominent families had no extensive pedigree. In Attica there is no evidence of long-term use of a common lot at any time from the Mycaeanean to the Classical period. Nor is there any sign of the continual tending of graves or consistent cult worship. Ancestral links seem to have been maintained over four generations or less, whether oral or written records helped to keep genealogical memory alive.

On the whole, times of instability and social disruption tended to favour a nostalgia for the past, impelling towards reaffirmations of heroic ancestry, renewed family-based claims of political legitimacy, and increased belief in the power of the dead, evidenced by greater care of the burial sites. With increased stability and prosperity, less emphasis was placed upon ancestral heritage, and there was a return to corporate burial. In the latter case, vigorous interaction between the living tended to be the focus rather than care of the dead.

In the early centuries of the Christian era, the Roman empire's contact with the east brought a blaze of interest in Near Eastern, Egyptian, and Oriental mystery religions, eclipsing for a time the glories of its Greek heritage. As Rome began to crumple, eastern influences triumphed over Classical tradition, not so much because of the superior splendour of the oriental, but because its mystical bent was more suited to the needs of the decaying empire. Its secret ritual practices, its pomp and ceremony, but also the sense of discipline and fellowship it promoted, brought consolation to the world-weary spirit in this era of decline. By the 3rd century Mithraism had spread throughout the empire, embracing the bulk of the army. Though the disillusioned were no longer drawn by the pagan insights of the sheer joy of life, characteristic of the Greeks, eastern mystery cults did promote the belief in the continuance of the soul and the cycle of rebirth, which continued the demand for reverence for the ancestors.

Upon the rubble of decaying Rome the emperor Constantine erected a new empire, Byzantium, committed to Christianity. To complete the transformation of the new empire, he established a second capital city, Constantinople, dedicated in AD 330. This site embraced all the elements of the reformed empire – Greek, Roman, and Christian – but, since it was set on the Greek-speaking coasts around an old Greek city, it was the Hellenistic past of the new empire that was highlighted. Constantine did all that he could to promote that historical connection, making the city a centre of education and the arts, stocking its libraries with Greek manuscripts and its museums with Greek treasures, and beautifying its streets and squares with Greek works. An obsession with its Hellenistic past flared throughout the empire. Even in the 12th century aristocrats were said to boast that their ancestors had arrived with Constantine (Runciman, 1933, p. 28).

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See also **Dead**

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ANIMALS

In Hellenic society animals have been essential with regard to the practicalities of farm work and food production, transport and war, hunting and sacrifice. Yet for the Greeks the cultural significance of animals goes beyond the practical. Greek myth in words and pictures represents real and imagined animals to explore culture, and uses them as conceptual tools. The Greeks not only used animals for practical purposes, they also used animals to think with.

In Greek society, predominantly rural, animal husbandry has always been important and in the late 20th century nearly one-third of the Greek population works in agriculture, although many farm animals are now reared indoors, often by intensive methods. The imagery of farming has informed Greek expression from Homeric epic on, where "towards evening"' is rendered as "the time for unyoking oxen" (*boulytonde*, as in the *Iliad*, 16. 779 and the *Odyssey*, 9. 58), while the early system of writing left to right and back again was described in terms of oxen ploughing (*boustrophedon*). Even the Greek gods were herdsmen (Apollo in the *Homeric Hymn to Hermes*; Helios in the *Odyssey*) and Zeus, Poseidon, and Dionysus have special taurine associations. Sheep and goats were indispensable for their wool as well as their milk and meat (Theocritus' goatherd and shepherd argue about whose fleeces are best, *Idyll* 5) and feature often in the mythic imagination. Pan is the goat god and the song that accompanied the sacrifice of a billy goat (*tragos*) is linked to the development of tragedy, while the shepherd tending his flock is a common literary theme; Polyphemus and Paris on Ida are early examples, while the Hellenistic pastoral of Theocritus and Longus romanticized shepherds as figures of past innocence, and Christian iconography represents Christ as a shepherd caring for his flock.

Animals were the objects of scientific enquiry for scholars such as Aristotle (*History of Animals*) and the 14th-century writer of the Byzantine *Diegesis ton Tetrapodon Zoon* [Descriptions of Four-Legged Animals]. Foreign fauna interested travellers such as Herodotus and Kosmas Indikopleustes and the Byzantines exhibited exotic creatures such as lions, leopards, crocodiles, bears, antelopes, and ostriches in the hippodrome and in zoos–in the 11th century Constantine IX Monomachos set up a menagerie in Constantinople (Attaleiates, 48–50). Wild animals provided entertainment by fighting (*theriomachountes*), each other or humans; animal–human combat is documented by Justinian I (*Novellae*, 105. 1) and features in Christian martyrology and hagiography.

Horses were valued highly for their service in battle and equestrian competition. The Homeric heroes in their horsehair-crested helmets fight from horsedrawn chariots and many, in particular Hector, are epithetically tamers of horses. Several war horses have their names recorded (unusual for animals): Alexander's Bucephalas was famous (Plutarch, *Alexander*, 61, Strabo, 698) while Achilles' horses, including Xanthus who prophesied Achilles' death (*Iliad*, 19. 478–94), mourned Patroclus (*Iliad*, 17. 443–47). At Athens the citizen class of cavalrymen, said to have been instituted by Solon, consisted of

men from wealthy families – the cavalry provided their own horses. Equestrianism was associated with the rich; in Aristophanes' *Clouds* Strepsiades complains that his son is bankrupting him with his mania for horses and racing. At the Panathenaic games competitors rode bareback or drove four-horse chariots around the race course (*hippodromos*). Pindar in an epinician ode records the victory of a successful racehorse, Pherenicus (*Olympian*, 1. 18), and many of the prize vases presented to the victors depict races. However, Church Fathers such as John Chrysostom were less enthusiastic about horse-racing (*Patrologiae Cursus, Series Graeca*, 59. 519. 33–34).

Animals are often anthropomorphized; writers from Aesop to Aristotle (*Historia Animalium*, 488b13–24) ascribed to animals human characteristics, while Aristophanic comedies such as *Birds* and *Wasps* and the political verse of 14th-century Byzantium such as Theodore Prodromos's *Katomyomachia* and the anonymous *Porikologos* and *Opsarologos* used animals to satirize contemporary society. Human beings are often described in animal terms – greedy people are like wolves, timid people are like deer, and, according to Semonides' poem of the 7th century BC which categorizes women according to animal type, chaste women are like bees (fr. 7 Diehl). The animal skins worn by maenads and the lion slayer Heracles represent an immediate association with the natural and the wild, yet too intimate an affinity with the bestial collapses the radical distinction between humans and other animals, an important predicate of Greek thought in antiquity and the Christian era, although the theory of reincarnation associated with the Pythagoreans which envisaged the transmigration of human souls into animals' bodies blurred this boundary. Hesiod separated man from animal on the grounds that men possess justice and do not eat one another (*Works and Days*, 276ff.); the Homeric hero should display the ferocity that wild creatures embody (Achilles entering battle is a ravening lion, *Iliad*, 20. 164–73) but should not become too beastly (Achilles' desire to eat Hector raw, *Iliad*, 22. 345–46)); the wild carnage and desire to eat raw flesh assimilates the bestialized man to the non-human, a wild animal or a monster like the uncivilized, cannibalistic Cyclops.

Greek myth transforms human beings into animals typically as a punishment: the witch Circe turns Odysseus' crew into pigs (*Odyssey*, 10. 233–43); Artemis makes Callisto a bear and Actaeon a stag; Lycaon, who sacrificed his child to Zeus, became a wolf (and was associated with the werewolf cult). Myth produced a variety of species hybrids like the hippocampus (horse–fish) and chimaera (lion–snake–goat) but Greek myth was interested particularly in animal–human mixtures such as satyrs (donkey–men) and centaurs (horse–men), anomalous creatures which, in blurring the human–animal boundary, draw attention to its importance. The wildness of drunken satyrs, played in satyr drama and painted on sympotic pottery, suggested the dangerous pleasures of bestializing Dionysiac excess; the centauromachy of the Parthenon in which the savage centaurs who disrupt the wedding feast are defeated by the Lapiths signifies the victory of civilization over wildness. Animal imagery is important too in Christian myth and iconography; in the Byzantine period the *Physiologos* and *Hexaemeron* used animals to symbolize virtues and vices and throughout the Christian era the devil has been represented as a snake. Dragons too were identified with evil and with enemies of the Church such as the emperor Julian (361–63); saints such as George and Elisabeth were portrayed defeating dragons.

Artemis, associated iconographically with the stag, was mistress of wild animals (*Iliad*, 21. 470) and she protected them, although as the huntress she killed beasts. Similes of hunting and wild predators are common in Homer and scenes of horses and hounds were popular with artists, who depicted the killing of deer, boar, hares, and lions. In the Byzantine period scenes of animal–human combat were added to this repertoire, as were illustrations of falconry, a popular pastime. A portion of the hunted animal was offered to the gods, yet wild animals were seldom thought to be the proper objects of sacrifice (one exception is the cult of Artemis at Patras: Pausanias, 7. 18. 12). The ritual slaughter of domestic beasts, however, was ubiquitous, although the vegetable offerings and vegetarianism of Orphic and Pythagorean cult ran counter to this principle. The best sacrifice was a bull; also of value were cows, sheep (rams were better than ewes), pigs, and poultry. Pigs were slaughtered in purification rituals. Fish and smaller animals were rarely offered to the gods, although Pausanias mentions puppy sacrifice (3. 14. 8).

The choice of sacrificial victim sometimes mirrored a religious iconography that frequently associated gods with specific animals: at Athens Athena, who carries a goatskin aegis, was honoured with goat sacrifices, while more generally bulls were connected with Zeus and Dionysus, cattle with Hera, doves with Aphrodite, and horses with Poseidon, mythically the ultimate ancestor of the horse. Typically sacrifice entailed the ritual cutting of the animal's throat, but at Argos horses were drowned for Poseidon (Pausanias, 8. 7. 2). Christianity rejected the tradition of animal sacrifice but pagan magic continued to use animals.

Animals were important in prophecy; seers inspected the entrails of sacrificial victims and augurs inferred the future from watching birds in flight and, less commonly, fish swimming. Birds of prey were particularly significant: the eagle was Zeus' bird, and Hesiod's tale of the hawk and the nightingale is a fable of kingly power (*Works and Days*, 202–12). Snakes, thought to be intermediaries between this world and the next, were associated with oracles, with the dead, and with chthonic deities such as Aeschylus' snaky-haired Erinyes. Indeed, several autochthonous myths have serpentine nuances; Cecrops, the first earthborn king of Athens, was a serpent from the waist down, while the foundation of Thebes was marked by the birth of the Spartoi, sprung from the dragon's teeth.

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See also **Divination; Hunting; Mythology; Satyr Play; Spells; Zoology**

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ANTHOLOGY, GREEK

Collection of epigrams from the 7th century BC to the 10th century AD

The present *Greek Anthology* is the culmination of a process of anthologizing which began in the 3rd century BC. It properly consists of two collections of epigrams written mainly in the elegiac metre. The *Palatine Anthology* is a compilation from the 10th century AD of 3765 poems, so called from a manuscript once in Rome and now divided between Heidelberg (Universitätsbibliothek, Palat. gr. 23) and Paris (Bibliothèque Nationale, suppl. gr. 384). The *Planudean Anthology* is a 13th- or 14th-century compilation of approximately 2,400 poems, of which 388 do not appear in the *Palatine Anthology*. It was this shorter collection, first published in 1494 by the Byzantine émigré John Laskaris, that was long known in the West as the *Greek Anthology*. The *Palatine Anthology* was not published until the early 19th century, by Friedrich Jacobs (Leipzig, 1813–17).

It was common practice for individual poets of the Hellenistic period to collect their own short poems into an individual book, and the *Soros* [Heap] may have been a joint edition of the epigrammatists Asclepiades, Posidippus, and Hedylus in the early 3rd century BC. True anthologies of poems by different authors were much rarer, although there is some scanty evidence for them from the end of the 4th century BC. The earliest extensive such compilation known today appears to be the *Stephanos* [Garland] of Meleager of Gadara in Syria, which was put together around 100 BC. This is an artistically arranged selection of poems from the previous two centuries, to which Meleager added a preface in which he named all the poets and attributed to each the name of a flower. His collection included graceful poems of his own composition, mainly erotic and addressed to both boys and girls. A second *Garland*, arranged alphabetically by the first word of each poem, was compiled, probably during the reign of Nero, by Philip of Thessalonica. His choice was more eclectic than Meleager's with less emphasis on love and more on rhetorical description (his personal contribution comprises 80 such poems). The first compilation to be called an "anthology", literally a "gathering of flowers", is that of Diogenianus of Heraclea during the time of Hadrian, although the title may be a lexicographer's description and not Diogenianus' own. *Cycle* was the name selected by the lawyer and historian Agathias of Myrina for a further anthology published probably shortly after AD 560. This contains classicizing epigrams by his Constantinopolitan friends and about 100 from his own hand.

The first really comprehensive anthology was that of Constantine Kephalas, who was possibly a palace chaplain mentioned by chroniclers as active in 917. It comprised the poems gathered by Meleager, Philip, Diogenianus (probably from a 4th-century abridgement), Agathias, and other anthologists and in further individual collections such as the pederastic *Musa Puerilis* of the 2nd-century AD poet Straton of Sardis and the often humorous and satiric poems of the 4th-century AD Alexandrian schoolmaster Palladas. Remarkably, it also included poetic inscriptions on Byzantine churches copied down by a contemporary, the *magistros* Gregory of Kampsa (in Macedonia), during his travels in Greece, Macedonia, and

Asia Minor. Although Kephalas's anthology is lost, it formed the bulk of the surviving *Palatine Anthology*. This huge compilation included additional Christian and rhetorically descriptive epigrams. Its compiler is unknown, but it may have been the early 10th-century poet Constantine of Rhodes, three of whose poems it includes.

The *Palatine Anthology* is divided thematically into 15 books of widely differing lengths. Their contents are: (1) 123 Christian epigrams that are mainly copies of inscriptions on Byzantine churches; (2) 65 descriptions in hexameters by the 5th- to 6th-century Egyptian poet Christodoros of Koptos (known also as of Thebes) of the statues of Classical mythological and historical figures in the baths of Zeuxippos in Constantinople; (3) 19 epigrams on filial mythological themes inscribed by two brothers on the columns of a temple at Cyzicus in honour of their mother; (4) the four prefaces to their anthologies of Meleager, Philippos, and Agathias (2); (5) 309 amatory epigrams; (6) 358 dedicatory epigrams; (7) 748 epitaphs; (8) 254 epigrams of St Gregory of Nazianzus; (9) 827 declamatory and descriptive epigrams; (10) 126 hortatory epigrams; (11) 64 convivial and 378 satiric epigrams; (12) 258 erotic and usually pederastic epigrams attributed, probably not always correctly, to Straton; (13) 31 miscellaneous poems in 30 different metres or combinations; (14) 150 arithmetical problems (perhaps all by Metrodoros), riddles, and oracles; (15) 51 miscellaneous poems including six *technopaegnia* (jeux d'esprit), the shapes of whose lines resemble panpipes, an axe, a pair of wings, an altar (two poems), and an egg.

Around 1300 Maximos Planudes, a scribe in the imperial palace and translator of Latin texts, made his own anthology of epigrams. For this he used three now lost manuscripts, two of collections similar to the *Palatine Anthology* and a third of an abridged version of Kephalas's collection. Planudes both rejected many poems and, making skilful use of his metrical knowledge, "emended" others to reflect contemporary propriety. The *Planudean Anthology* is divided into seven books – epideictic, satiric, funerary, ekphrastic epigrams, the hexameters of Christodoros, votive, and amatory epigrams. Each book is subdivided, poems on each theme being arranged alphabetically. Planudes' autograph manuscript (Venice, Biblioteca Nazionale Marciana, Marc. gr. 481) is dated 1301 (or 1299) and there survive also a preliminary and an incomplete final revision done under the compiler's supervision. The 388 poems unique to this compilation, usually collectively called the *Planndean Appendix* or, incorrectly, book 16 of the *Palatine Anthology*, are mainly epigrams about or imaginarily inscribed upon statues and paintings.

The *Anthology* has had a decisive influence on the literatures of modern European languages, especially during the Renaissance. In Greece itself, however, it was largely unknown to the vernacular poets, and the writers in the "purified" language (katharevousa) turned rather to French and Italian models. The main exception is Cavafy, an Alexandrian like many of the poets in the *Anthology*. Many of his poems are on Hellenistic themes, while the homoerotic ones are often inspired by or even based upon the *Anthology*'s epigrams of death and love. Unlike their predecessors, however, they are not pederastic, and, despite being less explicit, are generally more sensuous and anguished as a result of both his own personality and the contemporary attitude towards homosexuality.

The *Greek Anthology* is a garden with possibly more weeds than flowers, but it shows in an incomparable way the development of the genre of the epigram over more than one and a half millennia. It contains some of the most exquisite poems ever written in Greek: the world would be immeasurably the poorer were it not for its survival.

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See also **Epigram**

Text

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ANTHROPOLOGY, SOCIAL

Social anthropology (*anthropos*: Greek for "human being") involves the study of societies, particularly the cultural values and institutions such as religion, law, or politics that organize relations between people. Anthropologists attempt to understand how people in various communities perceive and inhabit their worlds. The focus below will be on social anthropological studies of Greece as well as anthropological studies done by Greeks.

Herodotus is generally viewed as the father of anthropology. He travelled extremely widely for a man of his time, from the Black Sea to Aswan in Upper Egypt, and from Sicily to Cyprus. His *Histories* mention more than 50 different tribes or "nations", including lengthy descriptions of the Egyptians and the Scythians. He did not stay long in these various places; he was more like a tourist than an ethnographic fieldworker. What distinguished him from earlier historians and mythographers was his application of a rationalist approach, which he called *historia*, literally "research, inquiry"– the very same term the early philosophers used to describe their investigations of nature. He would compare accounts and reject the less likely, or register his own scepticism. As he demurs at one point, "For myself, my duty is to report all that is said, but I am not obliged to believe it all."

Herodotus approached the study of society with distinct categories and questions in mind. He operated according to an implicit social theory that led him to scrutinize descent, language, and religion as the criteria that distinguished one group from another. In his accounts of specific groups he tended to emphasize marriage customs, religious rites, burial practices, and food habits – categories that would shape subsequent ethnographic thought throughout the Middle Ages. The pole of comparison of these various forms of life was, of course, the 5th-century Greek world. In kinship and

marriage, for example, the Greeks were patriarchal and patrilineal, and this made for comparative interest in the Lycians who reckoned descent matrilineally, or in the Massagetae who were promiscuous, or the Issedonians who ate their dead parents, but treated their wives as equals.

Herodotus' rational historical method tended to break down in the description of peoples inhabiting the limits of the known world such as the Issedonians. His report that in India there was a tribe ''that will not take life in any form; they sow no seed, and have no houses and live on a vegetable diet'' apparently contained a kernel of truth. Yet in other passages he wrote of people with feet like goats and others who slept half the year. The Roman imperial historian Pliny continued this exoticizing of peripheral peoples, expanding Herodotus' inventory of ethnological curiosities to include the Gamphastes who went naked and practised non-violence, and the headless Blemmyae whose eyes and mouths were set in their chests. These and other fantastic stories found their way on to medieval maps and influenced the perception of the world until the age of exploration.

The 16th and 17th centuries not only brought Europe into contact with hitherto unexplored parts of the world, it was also the period of the rebirth of humanistic interest in ancient Greece. One result of this historical coincidence of philological and geographical exploration was the appearance of books comparing the institutions and values of the ancients with those of contemporary ''savages'' in the newly colonized world. The French missionary Joseph-François Lafitau's 1724 volume comparing native North Americans to the Greeks and Romans was just one example of this trend. In addition to his primary interest in religion, Lafitau collected correspondences in domains such as government, family organization, education, and the gendered division of labour. The general conclusion that Lafitau and his contemporaries drew from this kind of research was that native Americans and the people of Classical antiquity must have sprung from one and the same source.

The chronological and evolutionary specifics of the relationship between contemporary inhabitants of small-scale societies and the ancients were further worked out in the 19th century. The view of high Victorian anthropology drew heavily on the ideas of evolution and progress. For E.B. Tylor, who became the world's first professional anthropologist upon assuming a readership at Oxford in 1884, all humans possessed the same mental equipment but some had developed faster and further than others. He divided humanity into three stages: savagery, barbarism, and civilization. The Britain of his day exemplified the last stage, and he and his countrymen could look at small-scale societies in places like Africa and Melanesia, or ancient societies in Greece or Rome, to see what they had once been like. Savagery was characterized by ''animism'' – the idea that spirits and supernatural beings animated and controlled the natural and human worlds. Homeric descriptions of the souls of warriors departing through their mouths at death could be compared with similar beliefs among peoples of the Malay archipelago. Tylor also considered that isolated elements from earlier stages of humanity could filter through to civilized societies as ''survivals'' – little irrationalities and superstitions like saying ''Bless you!'' when someone sneezed.

One of the goals of Tylor's follower, Sir James Frazer, was to identify and extirpate these survivals, thereby paving the road to progress. Frazer's multivolume work *The Golden Bough* (1890–1915) exhaustively catalogued and compared beliefs in fertility, death, and resurrection held by ancient societies, contemporary ''primitive'' societies, and even European peasants who, it was thought, had not been touched by ''civilization''. Frazer was an accomplished Classical scholar and his cross-cultural ethnographic learning also found its way into his six-volume commentary on the Greek traveller Pausanias. His influence touched the turn-of-the-century ''Cambridge Ritualist'' school of Jane Harrison, F.M. Cornford, and others, who made ample use of cross-cultural materials in presenting their arguments about the priority of ritual to myth in ancient Greek society.

Beginning with Bronislaw Malinowski in the 1920s, fieldwork, involving a residence of a year or more among the people under study, became the standard method of data collection in anthropology. During this time the anthropologist was expected to learn the language of the group under study and attempt, through the method of ''participant observation'', to capture ''the native's point of view''. Malinowski eschewed the hypothetical historicism of his Victorian predecessors. Societies were to be explained by his functional theory that emphasized how institutions enabled people to adapt to their environment and maintain social harmony in the present.

Malinowski's revolution spelled the end of the comparative, evolutionary, anthropological interest in ancient Greece that had flourished since the Renaissance, and it was not until after World War II that a variety of new approaches began to emerge. In 1955 Claude Lévi-Strauss published his essay on ''The Structural Study of Myth'' in which he applied his structuralist method to the myth of Oedipus. This called for a solid ethnographic knowledge of the society and the region whose myths were being considered. Lévi-Strauss was no specialist on ancient Greek culture and he even admitted in the course of his essay that Oedipus was ''an arbitrary example, treated in an arbitrary manner''. His structuralist method, however, was later to prove fruitful in the hands of the French Classical scholars Jean-Pierre Vernant and Marcel Detienne who produced stunning analyses of the cult of Hestia and the myth of Adonis respectively. These analyses depended upon detailed knowledge of Greek domestic space arrangements, ideas about gender, sexuality, and the symbolic associations of herbs and spices, to name just a few cultural categories.

Another postwar development was the general application of anthropological theories to illuminate Classical Greek values and institutions. The classicist E.R. Dodds (*The Greeks and the Irrational*, 1951) borrowed the American anthropologist Ruth Benedict's distinction between shame and guilt cultures to differentiate the Homeric world, where public appearances counted most, from the world depicted by the Classical tragedians, where actors were riven by internalized dilemmas. In another novel departure the ancient historian M.I. Finley applied the economic anthropological theories of Mauss and Polanyi to the understanding of ancient Greek gift giving, friendship, and trade (*The World of Odysseus*, 1954). From this point onwards anthropological theories and comparative examples have featured prominently and regularly in major works such as Walter Burkert's study of Greek sacrifice (*Homo Necans*, 1983) or James Redfield's study of social values in Homeric epic (*Nature and Culture in the Iliad*, 1975).

The study of modern Greek societies through ethnographic field research represented another important mid-20th-century departure. Up until this moment modern Greek village life and traditonal beliefs had been the province of folklorists and travellers from the 19th century and earlier. Scholars such as John Cuthbert Lawson and Nikolaos Politis were primarily interested in discovering survivals of ancient culture in modern Greece. Although roughly contemporary with the British Victorian anthropologists mentioned above, these folklorists took an entirely different view of survivals. In their view survivals added to knowledge about the revered ancients while also furnishing documentary evidence that the modern Greeks really were valid descendants of the ancients. This was an important national issue for the Greek state after nearly 400 years of Ottoman domination.

The new generation of anthropologists were not concerned with these issues, but rather with Malinowski's programme of rendering a holistic account of the community under immediate study. The American anthropologist Ernestine Friedl presented a monograph (1962) describing life in a Boeotian farming village that considered issues of tradition and modernity. And John Campbell published an account (1964) of the Sarakatsani, a transhumant group of pastoralists in Epirus. Campbell's study was the first full-length exploration of a cognatic kindred, a system where descent is reckoned through both parents. More theoretical focus was given to early anthropological research in Greece by John Peristiany, arguably the first Greek anthropologist to emerge after Herodotus. Peristiany conducted fieldwork in his native Cyprus and edited an influential volume entitled *Honour and Shame: The Values of Mediterranean Society* (1966) that drew together studies documenting a pan-Mediterranean set of complementary values. Men in these societies were held to possess ''honour'' – the ability to protect one's immediate kin, property, and good name. Women, on the other hand, possessed ''shame'' – the obligation to conduct themselves with modesty.

Once thought to be the key to understanding Greece, and all Mediterranean societies, the honour and shame complex has been criticized as too rigid. Current research in Greece has moved on to consider the fundamental duality in modern Greek social identity between Classical/western and Ottoman/eastern alternatives – between Hellenism and *Romiosyni*. Among themselves, contemporary Greeks may acknowledge the Ottoman influences on their culture and speak in affectionate, expressive terms that contain numerous Turkish-derived words. For purposes of self-presentation to outsiders these features are downplayed and links with the ancients are emphasized. In such situations more vocabulary may be selected from the katharevousa register, a version of modern Greek invented in the 19th century and designed to purge the spoken language of Turkish and Balkan elements. The performance of Greek identity thus involves constant code-switching between Hellenic and Romaic registers.

One consequence of the florescence of anthropological research on contemporary Greece and Cyprus is that Classical historians may now draw on these data to inform their reconstructions of earlier communities in the very same regions. Archaeologists have exploited this situation to make advances in the area of ethnoarchaeology. In order to further their understanding of ancient Greek subsistence and seasonal work patterns, for example, they may conduct field research among contemporary farmers and shepherds to gain an idea of how much grain a hectare of land normally yields, or how much milk a flock of sheep and goats can provide.

The orientation of this research is paralleled in the work of historians such as David Cohen who argue that the honour and shame complex identified through anthropological research in Greece may deepen the understanding of public morals in Classical Athens. Since independence in 1832 the Greek state, supported by folklorists and foreign travellers, has asserted that it continues the rational and sophisticated traditions of the ancients. Lying, vendettas, and the practices of remote agriculturalists probably did not figure in the state's initial vision of claimable survivals. An unintended consequence of this new research is that the ancient Hellenes now resemble *Romii avant la lettre* and contemporary practices hitherto disparaged as Romaic can now be confidently claimed as Hellenic.

The anthropology of Greece has come full circle in one other respect. Anthropological practice underwent critical re-examination in the 1980s resulting in greater sensitivity to the issues of representation and reflexivity. In principle this meant that more space should be given to representing the unmediated statements and opinions of the people under study, even to the point of making them co-authors of the ethnography. Reflexivity called for the anthropologists to include more information on their personal experiences and feelings in the field. These theoretical developments coincided with the establishment of social anthropology as an academic discipline in Greek universities. Increasing numbers of Greek anthropologists are now undertaking extensive field research in Greece. This rise of an indigenous anthropology offered one solution to the ''crisis of representation''. Greek anthropologists such as Neni Panourgiá, Nadia Seremetakis, Evthymios Papataxiarchis, and Vassos Argyrou have been able to utilize their total linguistic competence and relative insider status to offer striking accounts of death as experienced within an Athenian family, funeral lamentation in Mani, patterns of drinking and friendship on the island of Lesbos, and champagne as opposed to ''traditional'' weddings in Cyprus respectively. Public debates have centred on whether these indigenous anthropologists can render more valid accounts of Greek society. The preliminary verdict seems to be ''no''; there are likely to be as many different anthropological accounts of a given society as there are anthropologists.

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See also **Folklore; Honour and Shame; Identity**

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ANTIGONIDS

Dynasty of Macedonian kings

With the death of Alexander the Great in 323 BC and the murder of all the members of his immediate family within the following 30 years, the Argead dynasty of Macedonian kings (of which Alexander was a member) was extinguished. The throne of Macedonia was vacant and briefly occupied by various contenders, creating a political situation of great turmoil and instability. Only when Antigonus Gonatas secured the throne around 277 BC, held it for nearly 30 years, and sired a son who inherited it, can we speak meaningfully of the Antigonid dynasty of kings of Macedonia, but their roots in Macedonian history go back for more than half a century.

The grandfather of Gonatas was Antigonus Monophthalmus (the "One-Eyed"), who was a general throughout the Asian expedition of Alexander the Great. After Alexander's death, he was declared "general" (in Greek *strategos*)–essentially supreme commander–of all Asia, which gave him great power and control over a vast territory. Throughout the next 20 years Antigonus fought to consolidate his position and extend his power at the expense of the other successors of Alexander. At the period of his greatest successes, it might be argued that he came closest to recreating Alexander's kingdom. After some notable military victories, he declared himself and his son Demetrius "kings" in 306 BC. Although they were "kings" without a kingdom in geographical terms, this joint claim suggests that Antigonus intended to establish a hereditary line of rulers.

Antigonus Monophthalmus died on the battlefield of Ipsus in 301 BC, facing a coalition of the other successors. His son Demetrius Poliorcetes ("the Besieger"), who had already acted as Antigonus' roving general throughout Greece and Asia, inherited his father's ambitions. He interfered in the politics of mainland Greece, subdued Athens for a time, and was briefly declared king of Macedonia. In 293 BC Demetrius founded by synoecism a new city, Demetrias, near the site of Classical Pagasae (in turn near the site of Bronze Age Iolcus, from where the legendary Jason set forth on his journey to find the Golden Fleece) in the Gulf of Volos, a few kilometres from the modern city of Volos. In 285 BC, in the course of attempting to recover his father's Asian possessions, Demetrius was captured by Seleucus I of Syria and died in captivity two years later.

Antigonus Gonatas, the son of Demetrius and his wife Phila (the daughter of Antipater, the regent of Macedonia during Alexander the Great's absence), immediately took the title of king and entered the fray for the throne of Macedon. He finally secured it around 277 BC. His long reign saw the Chremonidean war in the 260s BC, when Athens and Sparta tried unsuccessfully to overthrow Macedonian control, and naval victories over the Ptolemies at the battles of Cos and Andros (usually placed in the context of the Chremonidean war). Gonatas died in 239 BC, having outlived all his royal contemporaries. Although his control over mainland Greece was insecure and he had been threatened in Macedonia, he reestablished Macedonia as a nation and made it a kingdom to be ruled by his descendants. On the cultural side, Antigonus had been a pupil of the philosophers Menedemus of Euboea and Zeno of Citium, and his court at Pella was a centre for writers and scholars, among them the historian Hieronymus of Cardia (author of the most reliable account of the decades after the death of Alexander the Great), and the poets Aratus of Soli and Alexander Aetolus.

Gonatas' son Demetrius II had probably been acting as the king's general during much of his father's long rule, but his defence of Macedonia against an Epirot attack at the time of the Chremonidean war is his only known action. He fought a war against Aetolia and the anti-Macedonian Achaeans around 238 BC, and was killed fighting the Illyrian Dardani tribe on the Macedonian frontier in 229 BC, leaving an eight-year-old son, Philip, to face the barbarian threat and the consequences in Greece of a weakened Macedonia.

The boy king Philip V was placed in the care of a regent, Antigonus Doson, a grandson of Demetrius Poliorcetes from one of his minor marriages. Antigonus proved a blessing to the threatened Macedonia, and his loyalty to the young Philip remained unshaken even after he was himself granted the throne around 227/26 BC (thereby becoming Antigonus III). Doson defeated the warlike Dardani tribe, and turned his attention to the south and east. He defeated the Aetolians and Thessalians in 228 BC, and made an expedition to Caria in 227 BC (the circumstances, cause, and purpose of this adventure remain obscure). His chance to re-establish Macedonian influence in mainland Greece came at the surprising request of the usually anti-Macedonian Aratus of Sicyon (the head of the Achaean League) for help in the Peloponnese against the aggressions of Sparta and Aetolia. Doson readily agreed, and was formally offered the citadel of Acrocorinth (which dominated the Isthmus of Corinth) in return for his military support in 225–24 BC. Corinth was occupied by a Macedonian military garrison, and Doson pushed back the threatening Spartan king.

One of the most important acts of Doson's reign was the foundation in 224 BC of the so-called Hellenic League, an alliance of existing Greek federations under Macedonian hegemony. The various federations were to be internally autonomous but interdependent with respect to foreign policy. The foundation of the Hellenic League was potentially significant because Greece was shortly to face the power of Rome, and it is

a landmark in the history of federalism. Unfortunately, Doson's premature death prevented the fruition of his plans having real effect. After recovering Arcadia in 223 BC and defeating the Spartan king Cleomenes III at the battle of Sellasia (just north of Sparta) in 222 BC, he returned to Macedonia to face another Illyrian invasion. A burst blood vessel in his lungs worsened his already weak health, and he died some months later in 221 BC, having provided for the education of his charge Philip V by sending him to Aratus of Sicyon, Macedonia's recent ally, to learn about Greek affairs.

The accession of Philip V as an independent monarch marks the beginning of the end for an independent Macedon, due to its involvement with a now very powerful Rome. Philip was still a teenager when his regent Doson died, but he was immediately plunged into the so-called Social War in which he and the newly founded Hellenic League faced Aetolia and its allies. The war lasted from 220 to 217 BC, and marked Philip's growth into a mature king. He gradually turned away from his new mentor Aratus and towards the camp of an Illyrian dynast named Demetrius of Pharos (the island of Hvar in modern Croatia) in the Adriatic Sea. Rome had rewarded Demetrius with the rule of this petty state when he delivered Corcyra (modern Corfu) into Roman hands, but his various aggressions in the Aegean caused Rome to expel him in 219 BC, and he escaped to Philip in Macedonia nursing a major grievance. Demetrius encouraged Philip's alienation from Aratus and the Achaean League and continually incited him against Rome, in the first instance against the Romans in Illyria. Furthermore, Philip's treaty with the Carthaginian general Hannibal was the death-knell of any hope of friendship with Rome.

The First Macedonian War between Macedonia and Rome began in 214 BC, and soon Rome forged an alliance with Aetolia against Philip. The war began inauspiciously for Philip, with various disasters in the Peloponnese, an ultimate break with Aratus, and the forced burning of his fleet, but his superior forces on land, combined with Roman inaction at critical periods, forced terms on Aetolia in 206 BC. The First Macedonian War was ended by the Peace of Phoenice (a city in Epirus, now in modern Albania), proposed by Rome in 205 BC and favourable to Philip.

Philip turned his attentions eastward, colluding in 203/202 BC with Antiochus III to divide Egypt and experiencing a naval defeat off the island of Chios in 201 BC at the hands of the combined Rhodian and Pergamene fleets. Fearing Philip's intentions, Rome declared the Second Macedonian War in 200 BC. Campaigns were fought in Greece, Thrace, Macedonia, and Thessaly, sometimes with notable successes for Philip, until in desperation Rome appointed Titus Quinctius Flamininus to the command in 198 BC. Under his leadership, in 197 BC the Romans decisively defeated Philip's forces at the battle of Cynoscephalae in Thessaly. Harsh military and financial terms were imposed upon Macedon, and Philip's elder son Demetrius was taken as a hostage to Rome.

Confined to Macedonia as part of the peace terms, Philip concentrated on rebuilding his country. He was now perforce an ally of Rome, albeit an uneasy one, and he had to be seen to support it – which he did against the usurper Nabis of Sparta, Antiochus III, and Aetolia. Rome remained suspicious of Philip, rightly so in view of his aggressive policy in the Balkans after 185 BC (defeating various Thracian tribes, resettling some, and making alliances with others). Philip, probably with the connivance if not the encouragement of his younger son Perseus, engineered the death of his pro-Roman son Demetrius after he was freed from his Roman sojourn, and secured the succession for Perseus, who shared his imperialist tendencies. On a tour of his kingdom in 179 BC, Philip V died of sickness at Amphipolis.

Upon his accession to the throne, Perseus renewed his treaty of friendship with Rome, but carried on his father's policy of consolidating Macedonia. He furthermore made a convenient dynastic marriage to Princess Laodice, daughter of Seleucus IV of Syria. Complaints by Eumenes II of Pergamum in the Roman Senate about Perseus' growing power led to the declaration of the Third Macedonian War in 171 BC. Macedonian advantages in the early years of the war were ended by the appointment of the Roman general Lucius Aemilius Paullus to the command in 168 BC. The Roman forces utterly defeated Perseus at the battle of Pydna (on the east coast of Macedonia south of Thessalonica) in 168 BC. Perseus fled to Samothrace but finally surrendered to the Romans. He and his children were taken captive to Rome, paraded in chains in Paullus' triumph, and the king – the last of the Antigonids – died in a Roman prison shortly thereafter. Macedonia was sacked of all of its wealth and its people were treated harshly. The royal kingdom was abolished, and the country was divided into four republics with elected officials who operated under Roman supervision. A pretender to the throne, Andriscus from Adramyttium in the Troad, claimed to be the son of Perseus, and raised some support for his cause. He had some military successes *c.*153–148 BC but was defeated by the Roman general Q. Caecilius Metellus Macedonicus, captured, paraded in triumph at Rome, and executed. Macedonia became a full province of Rome in 146 BC.

The Antigonids re-established Macedonia as a nation after the years of Alexander the Great's absence, the decades of chaos after his death, and the extinction of the Argead dynasty. Under their rule, the country gradually regained its prosperity after the severe depletion of manpower occasioned by the removal of some 40,000 men in their prime to accompany and reinforce the expedition of Alexander the Great. The wealth of Macedonia could not perhaps compete with that of the Ptolemaic and Seleucid empires, but the amount that was removed by the Romans (attested in literary sources) shows that the Antigonid kings could hold their own among other Greek monarchs. However, it was the serious mistakes in judgement by the later Antigonid kings regarding the level of Rome's interest in the Greek east and its ability to carry out its policy that led Macedonia to lose its independence and became the first of the Hellenistic empires to fall under Roman control.

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See also **Macedonia**

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ANTIOCHUS III THE GREAT *c*242–187 BC

Seleucid king

Antiochus III the Great was the sixth king (223–187 BC) in the Seleucid dynasty and the greatest ruler in the dynasty since Seleucus I (*c*.355–281 BC), the founder of the empire. Son of Seleucus II, he succeeded his elder brother Seleucus III on his assassination in 223 BC. The epithet "great" (*megas*) was probably taken by the king around 204 BC as the result of his eastern expedition of 212–205 BC, though it was subsequently dropped in favour of the title "great king Antiochus" (*basileus megas Antiochos*) that he assumed in 200 BC after his conquest of Coele Syria from Ptolemy V. The title asserted Antiochus' claims over the rule of Asia, following the Persian kings and Alexander the Great, and his superiority over his rivals the Ptolemies, who had claimed the title for themselves.

The best ancient account of Antiochus' reign is that of Polybius, but it is fully preserved only down to 217 BC and is fragmentary thereafter. Polybius must have drawn his information from one or more writers contemporary with the king, though who these were is uncertain. For the story of Antiochus' conflict with the Romans in the 190s BC down to the Treaty of Apamea in 188 BC reliance must be placed on Appian (*Syriake*, 1–44) and Livy (33–38); though derived in part from Polybius, these accounts are written from a Roman, not a Seleucid, perspective, and may not reproduce fully the Polybian original. In addition a large number of Greek inscriptions, chiefly from Asia Minor, provide important information on Antiochus' relations with the Greek communities there.

Antiochus came to power at a young age and in difficult circumstances, but he gradually asserted himself and went on to restore and extend the Seleucid empire as no previous king since Seleucus I had done. A rebellion in the eastern provinces led by Molon, the satrap of Media, who took the royal title, had to be put down (222–220 BC). Achaeus, a relative of the king in charge of Asia Minor from his capital at Sardis, proclaimed his independence and took on the royal title (220 BC), and was not eliminated until 213 BC. A war against Ptolemy IV of Egypt (219–217 BC) resulted in defeat at the battle of Raphia in Palestine, though Antiochus regained control of Seleucia in Pieria. From 212 to 205 BC Antiochus undertook a grandiose expedition to the east (the *anabasis*), perhaps in emulation of Alexander the Great, in which he brought Commagene and Armenia under control, sought to restore Seleucid dominance over Parthia and Bactria (though he was unable to dislodge the ruling king Euthydemus, with whom he made an alliance), and renewed links with India. On his return he made an expedition to the Persian Gulf, though he had to accept the continued independence of the trading city of Gerrha. After an incursion into Asia Minor (204/03 BC) he turned his attention to the successful conquest of Coele Syria, Palestine, and Judaea from Ptolemy V (*c*.202–198 BC). He then moved into Asia Minor to restore Seleucid rule over the Greek cities there, and into Thrace with the object of rebuilding Lysimachea, previously under Seleucid control (197/96 BC). His advance led him into contact with the Romans, who had defeated Philip V of Macedon at Cynoscephalae (197 BC) and had proclaimed the "freedom of the Greeks" at the Isthmian festival (196 BC). Misunderstandings and suspicions developed between both parties as to their respective intentions, and it is not easy to determine the responsibilities for the conflict that eventually broke out when Antiochus landed on the mainland of Greece posing as a champion of Greek freedom against the Romans (192 BC). Expelled by the Romans from Greece (191 BC), Antiochus was then defeated by them at the battle of Magnesia in Lydia (190/89 BC). By the Treaty of Apamea (188 BC) he was forced to evacuate all lands to the north of the Taurus, reduce his military forces, pay heavy war indemnities, and provide hostages. Significantly reduced, the Seleucid empire remained nevertheless powerful and wealthy. Antiochus himself was killed soon after on an eastern expedition (187 BC) while pillaging a temple of Bel in Elymais.

Antiochus' reputation in the extant sources is very mixed. Polybius found fault in the king's early years when the young ruler lacked authority and experience, though he praised his conduct and achievements in the eastern expedition. He denounced the secret pact that Antiochus allegedly made in 203/02 BC with Philip V to partition the possessions of Ptolemy V. He accused the king of failing in his later years to live up to the promises of his early reign, and thought he had mishandled the campaign against the Romans. The presentation in Livy and Appian of Antiochus' role in the war against Rome is negative. The king is credited with aggressive intentions against Rome, and with mismanaging the war. Roman propaganda also presented him in the guise of an "oriental despot", a second Xerxes invading Greece who was repulsed and defeated by the Romans.

Little is known of the personality of Antiochus (the same is true of most of the kings in the dynasty), though many of his known actions suggest a ruler of exceptional ambition. At some time in his reign (before 193 BC) he instituted a divine cult of himself and his ancestors which was organized on an empire-wide basis, and to which he added (193 BC) a similar cult of his first wife, the Pontic princess Laodice whom he had married in 222 BC. No previous or subsequent Seleucid ruler is known to have done this. He made extensive use of dynastic marriages in his imperial designs, and it is to his reign that belongs the only recorded instance of brother-sister marriage in the dynasty (his eldest son Antiochus was married to his daughter Laodice). On the other hand Antiochus was not a great city founder, unlike Seleucus I and his son Antiochus I, and this affected his subsequent memory. His inglorious end after defeat at the hands of the Romans obscured the memory of his earlier achievements and leaves the historian with an unresolved enigma.

MICHEL AUSTIN

See also **Seleucids**

Biography

Born *c.*242 BC, Antiochus succeeded his elder brother Seleucus III in 223. He assumed the title "great" probably in 204, but dropped it in 200 in favour of "great king Antiochus" asserting his claims over Asia. He considerably expanded the territory of the Seleucid empire, but was defeated by the Romans at Magnesia in 190/89 BC. He died fighting in 187 BC.

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ANTIQUITY, RECEPTION OF

Hellenic culture is the product of a complex and sometimes problematic relationship with its ancient past, cultural and linguistic. From late antiquity to the modern era an emphasis on continuity with the Classical tradition has been seen as a way of maintaining and expressing ideals of Hellenic identity and unity, marked particularly when these ideals have been perceived as being under threat from "alien" hegemonies – the Roman empire, the Tourkokratia – and in times of national reunification and reinvention.

In antiquity itself the Greeks cherished and derived inspiration from their cultural heritage and sought to gain prestige through establishing ancestral connections, communal and personal, with the gods and heroes of myth. It was the Greek writers and scholars of the Hellenistic world and the early Roman empire, however, who laid the foundations for subsequent attitudes to antiquity in the Greek-speaking world. The intensive scholarly enterprise of the Hellenistic age, focused around the great libraries – particularly that of Alexandria where the gathering and editing of ancient texts and fragments were prioritized as the proper object of academic energy – not only preserved the culture of high antiquity for the future but also provided a model of activity for later scholars. This retrospection extended to the Alexandrian literati who displayed their erudition in sophisticated treatments of esoteric myth and a familiarity with earlier genres, dialects, and metres; following the Hellenistic model, the notion that the literature and language of earlier antiquity were the proper exemplars became a standard for later writers.

The Greeks of the early Roman empire exhibited a more pronounced nostalgia for the past; the literary renaissance of the 2nd and early 3rd centuries AD, dubbed the Second Sophistic by Philostratus, was informed heavily by the culture of Classical Athens (designated as the First Sophistic). The orators Herodes Atticus and Aelius Aristides took Classical rhetoric as their model; the travel writer Pausanias sought to describe Greek culture before the Roman conquest; while Phrynicus produced a lexicon of "correct" vocabulary predicated on Classical usage and the notion of ancient Greek as a linguistic and cultural ideal. This "Atticism", a Classicizing and archaizing written style distinct from the developing spoken Greek language, became a marker of the educated elite and a potent ideological symbol of the continuity between past and present which persisted through the Byzantine period and into the 20th century.

The Greek language which had become the koine of the Hellenistic world remained the lingua franca of the Byzantine empire, an important factor in the reception of antiquity by Byzantine writers and scholars, for whom the literary tradition of ancient Greece was central. Writers of the 5th and 6th centuries AD were well acquainted with the literature of antiquity and this familiarity informed their own work: Homer and Aristotle were particularly important exemplars, while Procopius in the early 6th century was influenced by Thucydides and Herodotus and wrote in the language of his Classical models.

The problematic 7th and 8th centuries represented a hiatus in Byzantine literary enterprise, but from the late 8th century the focus of scholarly interest was the reaccumulation and re-editing of the ancient texts and fragments that had been lost in the preceding period; the 9th and 10th centuries saw the production of the *Suda* and Photios's *Bibliotheca*. In the 7th–11th centuries Roman rather than Hellenic antiquity provided the literary model for Byzantine writers, although the copying of Classical texts and scholia continued. In the mid-11th century, however, there was a renaissance of interest in the culture of ancient Greece during the reign of Constantine IX Monomachos. Classical Greek texts were revered particularly, and the Classical revival was marked by a resumption of scholastic endeavour. Noted Classical scholars such as Michael Psellos and John Italos in the 11th century and John Tzetzes and Eustathios of Thessalonica in the 12th did not confine themselves to the copying and editing of ancient manuscripts but became the self-appointed exegetes of the Classical tradition, writing essays and commentaries in a broadly "Classical" style, albeit from a Byzantine perspective, and using ancient texts to reflect upon contemporary and often ecclesiastical issues. During the Palaiologan period (13th century on) there was a revival in Classical philology and many Greek texts owe their survival to the efforts of Planudes in the 13th century and Triklinios in the 14th. Yet antiquity did not have a monopoly of influence upon the Byzantine literati; the histories of Anna Komnene demonstrate a high Attic style but take the Second Sophistic and late antiquity as models as well as the Classical period, while in the Palaiologan period Byzantium was influenced too by the literature of the medieval West, and much of the religious literature of the empire – in particular the hagiographies and hymnographies – owed nothing to the ancient tradition.

There existed within the Church an equivocal attitude towards the culture of antiquity. From the time of Constantine the term Hellenic (*Hellenikos*) was equated with paganism and was construed as a rival to Christianity; the Church preferred the plainer koine to the "pagan" high Classical style of secular literature and repudiated the polytheism and "immoral" gods of ancient mythology. Indeed in the 10th and 11th centuries any involvement with the myth and philosophy of antiquity invited the charge of anti-Christian behaviour; long ago Justinian had tried to suppress the philosophical schools at Athens, and in the mid-11th century the Platonic and Neoplatonic researches of John Italos were denounced as heretical. Yet paganism proved difficult to eradicate: the cult of Dionysus in particular gathered strength in the period of late antiquity, as evidenced by Nonnus' epic *Dionysiaca* of the mid-5th century, while Christian converts used the mythical iconography of ancient Greece in their churches and incorporated elements of the outlawed pagan worship into the new religion. Furthermore, the literature, philosophy, and rhetoric of Greek antiquity were integral to Christian thought and education: the distinction between the repudiation of Hellenism as paganism and a reverence for the secular literature of Hellenic antiquity was an uneasy one.

The 19th century saw the coincidence of two factors that were highly significant with regard to the reception of the Classical tradition – the revival of Classical scholarship in Europe and the emergence of an independent Greece. The influence of European interest in Greece and the many important archaeological finds impressed upon the Greeks the value, artistic, historical, and commercial, of their past. A series of measures that aimed to preserve the Greek heritage were taken in the first half of the 19th century: in 1826 the provisional government issued a decree for the protection of antiquities, and three years later the fourth National Assembly at Argos prohibited their export, and the first archaeological museum in Greece was founded at Aegina. However, many important artefacts had been taken already, for example the friezes from the Parthenon and Bassae, still in London, and the sculptures from the temple of Aphaea on Aegina, now in Munich. The recovery of antiquities is still a political issue in Greece and a focus of national pride.

When the seat of the new government was moved to Athens the city was rebuilt in the Neoclassical style, and between 1834 and 1837 the Acropolis was "cleansed" in an attempt to restore the purity of the Classical past. Indeed, an emphasis on cultural continuity and "purity" became the keynote for a Greek nation that had survived Ottoman domination and its concomitant cultural and linguistic "contamination": Greek identity was to be reconstructed on the foundations of ancient Hellenism and the image of a new philhellenic Greece entering a new Periclean age. The literature of the period is indicative of this classicizing enterprise: Konstantinos Paparrigopoulos's *History of the Greek Nation* (1860–72) stressed the continuity of Greece from antiquity to the modern era; Adamantios Korais (1748–1833) edited a series of Classical texts, and Philippos Ioannou composed verse in Classical metres – the emphasis was on the perpetuation of the Classical tradition and an archaizing purity of language. Classical studies became the basis of education (as indeed was the case throughout Europe); the University of Athens, founded in 1837, emerged as a bastion of linguistic archaism while the syllabus laid down for the "demotic" schools in 1883 concentrated on the rote learning of Classical texts and the study of ancient Greek.

One primary educational and political concern was the question of a national language; the members of the new Greek state spoke a variety of dialects and languages, including Turkish, and the notion of the standardization of Greek and what form it might take occupied thinkers and politicians for much of the 19th and 20th centuries. One school of thought held that the national language should reflect the tradition of ancient Greece and Byzantium and that Greeks should speak the language of antiquity or at least a "corrected" form of contemporary Greek. In the view of such "archaizers" a knowledge of ancient Greek would give the people access to their cultural inheritance and the translation of ancient texts into the vernacular represented a degradation of the past. Contrarily, others argued that the national language should reflect contemporary Greek linguistic practice and culture. For these "demoticizers" ancient Greek was incomprehensible to ordinary people and its study was available only to the privileged few; thus the prioritization of the learned Greek of antiquity over the modern, demotic language was an elitist anachronism, a socially divisive programme that would separate the people from their heritage. The translation of ancient texts and the performance of ancient drama in demotic Greek was supported in particular by Kostis Palamas (1859–1943); however, feelings regarding the "bastardization" of ancient culture ran so high that a performance in 1903 of Aeschylus' *Oresteia* in a vernacular translation resulted in a riot. The "language question" has informed the

political ideology of both left and right and has persisted well into the 20th century; while the Venizelos government introduced the teaching in schools of demotic Greek in 1917, it was not until the Education Act of 1976 that it was decided that the language of education should be modern Greek.

Many modern writers have felt that an artificial "corrected" form of Attic Greek and a "fossilizing" approach to ancient culture arc not only reactionary but also a bar to poetic creativity – Dionysios Solomos (1798–1857) in particular was a champion of demoticism, and the vernacular is now the literary as well as the spoken norm. However, much modern Greek poetry is informed and inspired by antiquity: Solomos, while imbued by the Italian tradition, was influenced by Platonism, as was Palamas. Angelos Sikelianos (1884–1951) too was interested in Plato and in ancient mystery religions, while the "historical" poems of Constantine Cavafy (1863–1933) are set in Hellenistic Alexandria and Byzantium. Yet perhaps the cultural genre of antiquity that appeals most to the contemporary cultural imagination is 5th-century BC drama. There have been many European productions of Greek tragedies from the 16th century on throughout Europe (see Burian, 1997), nearly all of them in languages other than Greek, but during the 20th century in particular there has been a revival of interest in the drama of antiquity in Greece itself and a reintroduction of the ancient notion of the dramatic festival: in the 1920s Sikelianos instituted a cultural festival at Delphi, staging Aeschylus' *Prometheus Bound* and *Suppliant Women*, and in the mid-1950s festivals of ancient drama were instituted at Epidaurus and at the Odeum of Herodes Atticus in Athens. Some modern productions have aimed at authenticity; Sikelianos derived the costumes and movements of the chorus from ancient vase paintings for his staging of Aeschylus, while the film maker Michalis Cacoyannis's *Trojan Trilogy* (1961–76) used ancient sites and costumes. However, tragic performances by Karolos Koun's Theatro Technis are informed by modern Greek rituals and there have been several modern treatments of ancient drama that not only use contemporary settings but also use the narratives of antiquity to explore contemporary issues. Jules Dassin's screen adaptation of Euripides' *Hippolytus* (1961) is a critique of Greek high society – Theseus is transformed into a shipping magnate; Hippolytus dies not in a chariot but in an Aston Martin; and Phaedra, played by Melina Mercouri, overdoses on sleeping pills. More recently the fratricide and divided loyalties of Sophocles' *Antigone* were staged by Nikos Koundouros in the no man's land between northern Greece and the former Republic of Yugoslavia.

Translations of ancient texts into modern Greek and new media such as film have engaged a wider audience. Poets, theatre directors, and film makers have taken antiquity out of the museum and classroom and into a wider public arena, reinstating ancient literature and thought as part of the living tradition of Greece and as an integral part of contemporary Hellenic culture. Yet while an engagement with antiquity may be a source of inspiration to its inheritors, the achievements of the past may also provoke what has been called the "anxiety of influence": in the Palaiologan period the scholar Theodore Metochites complained that there was nothing left to say – the ancients had said it all; in the 20th century George Seferis, for whom Greece's ancient ruins signified the sterility of the modern imagination, intimated that the sheer weight of a glorious cultural inheritance could be a burden as well as an inspiration: "I awoke with this marble head in my hands" (*Mythistorema*, 3).

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See also **Identity; Language; Tragedy**

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APELLES

Painter of the 4th/3rd century BC

Apelles was the most celebrated and the most written-about painter in antiquity, yet we know neither his date of birth nor his date of death. However, his likeable and colourful personality, his rivalries with others, and his special relationships with the most powerful men of his day have generated many anecdotes about the man, the artist, and his works. He attained remarkably high social and economic status, and wrote treatises about his painting. Unfortunately, neither his writings nor his famous creations survive. All we have are anecdotes, the mention of more than 30 titles of his works, perhaps a few very vague and suspect reminiscences in Roman paintings, and a few elaborate literary descriptions, the last of which formed the basis for attempted recreations of his works by Renaissance artists.

Born sometime around 370 BC, in either Cos or Colophon, Apelles first trained in the Ionic school under Ephorus of Ephesus. He then moved to the Greek mainland, paying a large sum for the privilege of becoming the student of Pamphilus, the master of the Sicyonian school. Combining the grace of the Ionic style with the thoroughness of the Sicyonian school, Apelles attained a reputation that by *c.*340 BC was sufficiently prominent to gain him entry to the court of Philip II in Macedonia, where he painted portraits of the ruler and his court. During the reign of Alexander the Great, Apelles' affable nature and abilities as a painter advanced him to the point where the ruler made him his official portraitist. Apelles joined the ranks of the sculptor Lysippus and the engraver Pyrgoteles as the only artists officially allowed to depict Alexander. The latter was attempting, it seems, to develop his official portraiture, and to control the quality, and messages conveyed by, his images.

Apelles' easy relationship with Alexander and his associations with other powerful rulers and commanders made the artist's reputation. His works fetched extraordinary prices and were avidly collected. His portrait of *Alexander as Zeus Keraunophoros* [the Thunder-Bearer] for the temple of Artemis at Ephesus fetched 20 talents; his *Aphrodite Anadyomene* [Rising from the Sea], intended for the temple of Asclepius at Cos, was eventually taken by the emperor Augustus in exchange for remission of a 100-talent debt.

Apelles' works included a variety of subjects: historical portraits of Philip, Alexander, Menander (satrap of Caria), and Antigonus Monophthalmus; such figures as philosophers, men of letters, actors, and priests; elaborate allegories; personifications; and naturalistic renditions of animals. He even painted a self-portrait, perhaps the first of antiquity. The most famous portraits were those of Alexander. Whereas it was Lysippus who appears to have been chiefly responsible for the development of a heroic image of Alexander, Apelles (and perhaps also Pyrgoteles) created a superhuman image and divine personality which were more suited to the needs of an Alexander who was the ruler of a great and unified empire. *Alexander as Zeus Keraunophoros* had obvious religious and political overtones for the new empire. Some details of the painting are recorded (see below) though even the subject's basic pose is not described: perhaps Alexander was seated on a throne following Phidias' *Olympian Zeus*. The painting of Alexander in the house of the Vettii at Pompeii may reflect some of Apelles' influence.

Of Apelles' numerous portraits of Alexander, two others are notable for conveying the elevated status of the ruler: *Alexander in the company of Nike and the Dioscuri*, and *Alexander in a Triumphal Chariot* with the personification of War (Polemos) with bound hands. Such overt imagery was useful to later rulers, accounting for the prominent display of both paintings in the Forum of Augustus in Rome. Associations with that ruler were made even more directly when Claudius had Alexander's features replaced by those of Augustus. By creating such portraits of Alexander, Apelles breached the divide separating the human from the divine, making the deification of mortals much easier for later artists and rulers.

Of Apelles' allegorical paintings, his *Calumny*, created after he had been slandered and subsequently cleared at Ptolemy's court in Alexandria, is the most famous. Lucian (*Calumny*, 4) provides both the context and description for the work, which has been cited as the only known example of painted satire in antiquity. Several Renaissance artists (among them Dürer and Botticelli) attempted to capture the essence of the lost work using only Lucian's words.

The *Aphrodite Anadyomene*, Apelles' most famous painting, also inspired Renaissance artists. According to one tradition, Apelles had fallen in love with Alexander's mistress while painting her portrait. When he realized what had happened, the king gave her to Apelles, who then used her as the model for the *Anadyomene*. The story fits well with other information about his relationship with Alexander and with his reputation as a naturalistic painter of great talent. The painting was eventually displayed by Augustus in the temple of Julius Caesar, where it would remind viewers of Caesar's claim of descent from Venus-Aphrodite.

Some of Apelles' more elaborate concepts of abstract personifications included depictions of *Thunder* (*Bronte*), *Lightning* (*Astrape*), and the *Thunderbolt* (*Keraunobolia*). All probably were examples of his experimentation with lighting effects, which are recorded or surmised for other paintings. Lucian states that studied gradations in colours were used in the faces of the *Calumny* to distinguish its personifications, lighting technique may also account for the three-dimensional effect of the fingers holding the sparkling bolt of lightning in the *Keraunophoros*. The suggestion that Apelles increased the brightness of the bolt to make it stand forth by darkening the figure of Alexander provides a hint of what his experimentation might have accomplished.

He is praised continually for the amazing realism of his works. His portraits were said to be so perfect that a physiognomist was able to determine the subject's age and how much longer he had to live. As with earlier painters, stories developed in which animals became judges of paintings, and were unable to distinguish between painted images and reality. When Apelles, entered in a contest to paint horses, realized that a conspiracy had already decided the outcome, he had real horses brought in to prove his skill by their neighing only at his work. As a general attribute of great artists, such comments about naturalistic renditions tell us little about the painters, but often allow other deductions.

The stories about Apelles seem to indicate that he concentrated on human and animal subjects rather than scenery and incidental detail. Nor does he seem to have been much concerned with elaborate perspective, although some of his works imply an interest in foreshortening. He painted an oblique portrait of Antigonus Monophthalmus, so that only his good eye would be visible, and a Heracles seen from behind.

Anecdotes about his friendly rivalry with Protogenes, another important painter, reveal some of Apelles' other techniques and interests. The two painters probably refined the skiagraphic technique (shadow painting), raising it to a new level. The contest in which they vied with one another in drawing a finer, steadier line reveals the importance of manual dexterity and control, which, in conjunction with the daily drawing practice of Apelles, serves to emphasize his probable belief that these skills were the foundations of his success. Naturalistic illusion through fineness of line seems to have been the key to Apelles' approach to painting.

His skill also was reflected by his use of only four colours. The technique had been in use for some time, but was probably brought to its acme by Apelles, whose fame inspired Renaissance artists to attempt to emulate his success with the restricted palette. The use of few colours and his eschewing of elaborate perspective and scenery made his simplicity of design, his beauty of line, and his charm of expression his chief merits.

In addition to his advances in artistic style and technique, Apelles also developed some sort of transparent varnish, a dark glaze (*atramentum*) that preserved the paintings and softened the colours, perhaps adding to the naturalism of the subject. Attempts to rediscover this substance have failed.

Unlike most other artists, Apelles was unusually receptive to criticism from all quarters, though he was also quick to counter undeserved criticism, whether from a ruler of Alexander's stature or a common cobbler. The story of him hiding to hear criticisms of his works from people in the street, and then altering his paintings accordingly, fits well with his acknowledgements of other painters' abilities: Melanthius spaced his figures better, Asclepiodorus had better symmetry and proportions. Apelles believed himself the painter who excelled all in grace or charm (*charis*). His peers, his clients, and Roman emperors and nobles not only agreed, but regarded him as the best painter of antiquity. Scholars and artists since the Renaissance, intrigued by his reputation and descriptions of his paintings and techniques, have tried in vain to recover his genius.

ANDREW N. SHERWOOD

See also **Painting**

Biography

Born *c.*370 BC in either Cos or Colophon, Apelles studied first at Ephesus under Ephorus and later at Sicyon under Pamphilus. He gained entry to the court of Philip II of Macedon. He alone was permitted to paint Alexander. He painted historical portraits, types, personifications, and animals. He achieved fame in his lifetime and became the most celebrated painter in antiquity, though none of his works now survives.

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APHRODISIAS

City in Asia Minor

Aphrodisias, an ancient city of Caria in Asia Minor (now Geyre in Turkey), is located about 240 km southeast of Izmir (formerly Smyrna) in a fertile plain with a good supply of spring water. The site was inhabited by the late Neolithic period; in the 4th millennium BC a prominent settlement was established and continued to exist there throughout the Bronze Age. Already in prehistoric times a fertility goddess was venerated at the site. As the fame of the local goddess, called Ninoe, gradually spread, a settlement with a sanctuary and a surrounding area under its protection was founded in the 1st millennium BC. Although a vigorous community developed during the Archaic period, one cannot speak of the existence of a city at this time.

Until the Hellenistic period Aphrodisias remained a sacred site with a sanctuary, associated, perhaps from the 3rd century BC, with the Greek goddess Aphrodite, after whom it was named, as indicated by coin inscriptions of the late 2nd and early 1st centuries BC. Its transformation into a city seems to be connected with the establishment of Roman power in western Asia. Although excavations on the site were undertaken at the beginning of the 20th century, it was not until 1961 that Aphrodisias began to be systematically excavated. The site is notable for its extensive and well-preserved monuments.

With the arrival of the Romans in Anatolia Aphrodisias flourished, largely because of its close relationship with Rome and especially with the family of Caesar. Thus Aphrodisias resisted Mithridates VI in 88 BC and the "Liberators" – Brutus and Cassius – after Caesar's death. In 40 BC Labienus, one of their supporters, attacked Aphrodisias and both the city and the sanctuary were plundered before Antony defeated him (39 BC). Thereafter Aphrodisias lay in Antony's sphere of influence. At this time the name of Aphrodisias appeared on coins together with that of the neighbouring city of Plarasa. In 39 and 35 BC Antony sent a senatorial decree to Aphrodisias, in which the Plarasians and Aphrodisians were addressed as citizens of the city, which presumably resulted in the unification of the two cities. The decree guaranteed Aphrodisias its freedom as well as certain special privileges, such as a non-taxable status and asylum rights to the sanctuary of Aphrodite. During the Roman empire the population reached 50,000, and the city enjoyed a long period of prosperity and was transformed into an important cultural, religious, and artistic centre.

The city was laid out according to the Hippodamian town planning system and in the second half of the 3rd century AD a fortification wall, *c.*3.5 km long, was built around it against the threat of Gothic invasions. Elaborate buildings, such as the theatre, the tetrastoon, the agora, the baths of Hadrian, the Sebasteion, the odeum, the temple of Aphrodite, and the stadium (which could seat almost 30,000 spectators) were erected in Aphrodisias during Roman times. Traces of a gymnasium complex and a sculptor's workshop have also been recovered.

The theatre of Aphrodisias, one of the best preserved in Turkey, was built in the second half of the 1st century BC. It remained in use during the early Byzantine period and could hold around 8000 spectators. The wall of the north parodos was discovered to be lined with inscriptions and was thereafter referred to as the "archive wall". These documents – mostly letters – form a unique record for the history of Aphrodisias and of Roman Asia Minor.

To the southwest of the temple of Aphrodite stood a residential complex of the 3rd century AD. The building consisted of several rooms and halls and a peristyle court decorated with blue marble columns. Originally this may have been a private dwelling of a high Roman official, but in the Byzantine period it was the bishop's palace. A similar building, constructed in the 3rd century AD to the north of the temple of Aphrodite, is identified as a school of philosophy, which in the 6th century AD was used as a residence.

Aphrodisias became famous as a centre for medicine and philosophy. Xenocrates composed his medical treatises here, while the philosophers Alexander (one of the best commentators on Aristotle) and Adrastus originated from Aphrodisias. Statues, reliefs, and sarcophagi were produced in the sculpture workshops of Aphrodisias for local use and export. Local sculptors gained fame, and their signatures are found in many regions of the Mediterranean; their craftsmanship was appreciated even in Rome, and a school of sculpture was founded which lasted to the end of the 5th century AD. The sculptors managed to give new meanings to Classical models and did not limit themselves to mere reproduction of well-known works of Classical art. The marble quarries in the vicinity of Aphrodisias were a source of white and dark marbles. Sculpture competitions were also held in the city.

In the 3rd century AD changes in the administration of the Roman empire affected the privileged status of Aphrodisias, which was considered part of the province of Asia. After the formation of a new province of Caria and Phrygia in the 250s, Aphrodisias probably became its administrative centre. Under Diocletian (284–305), it was the capital of the separate province of Caria.

ELENI ZIMI

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APOLLONIUS OF PERGE

Mathematician and astronomer of the 3rd century BC

The work of Apollonius of Perge, who was active in the late 3rd century BC, marks the end of the great creative period of Greek geometry. He was the author of a number of mathematical works, including *On the Cutting off of a Ratio* (which survives in an Arabic translation), and we are told by Ptolemy (who quotes one of his theorems) that he did important work on the mathematics of astronomy. His status as one of the great mathematicians of antiquity, however, rests on his *Conica*, a treatise in eight books on the geometry of the ellipse, the parabola, and the hyperbola. The first four books, the only ones to survive in Greek, are described by Apollonius in his preface as an "elementary introduction", and deal with the construction of the figures, their fundamental properties, and a series of theorems on a variety of mathematical relationships; they are modelled, both in their method of presentation and in their organization, on the *Elements* of Euclid. Of the remaining four books, three survive only in Arabic translation, and the fourth is completely lost. They deal with a number of separate additional problems, with little attempt to bring them together into a single system of argument; the quality of mathematical thought in these books (and especially book 5) is very high.

Apollonius himself makes little claim to originality, and it is certainly true that when he wrote his treatise Greek geometers had already been working on conic sections for some time. The first to do so was probably Menaechmus, in the 4th century BC, as part of his attempt at a solution to the problem of duplicating the cube. Later Euclid wrote a work on conies (now lost), and Archimedes also deals with them, particularly the parabola. Apollonius, however, in suggesting that he is simply compiling and systematizing the work of his predecessors, seriously understates his achievement. Earlier Greek geometers had treated these curves as sections of different kinds of cone, cut by a line perpendicular to one of the sides of the cone. Cutting an acute-angled cone produces an ellipse, a right-angled cone a parabola, and an obtuse-angled cone a hyperbola. What Apollonius did was to show how all of these curves could be generated from sections of a single type of cone, the double oblique cone, thus achieving a much greater degree of generality. He deals with most of the features of cones familiar to modern mathematicians, and where he omits some (as, for example, the focus of the parabola) it is more likely that the reason is that he was trying to write an elementary treatise, rather than that he was unaware of them.

The *Conica* established itself as a sort of supplement to Euclid, and one of the basic texts of Greek mathematics, at a very early date. It was still being studied in the 4th and 5th centuries AD, when it was the subject of commentaries by, among others, Serenus, Hypatia, and Eutocius. The oldest surviving manuscripts date from the 9th century, a period when interest in mathematics was being revived in the Byzantine empire, which perhaps indicates that the *Conica* was still being regarded at that period as a fundamental text.

The 3rd-century AD mathematician Pappus gives brief descriptions of five other works by Apollonius which are now completely lost: *On the Cutting off of an Area, On Determinate Sections, On Tangencies, Plane Loci*, and *Vergings*. Pappus also preserves an extract of a description of a method of expressing and manipulating very large numbers, using 10,000 as base. Other works that are credited to Apollonius are a *Comparison of the Dodecahedron with the* Eicosahedron, a *General Treatise* (on the fundamental principles of geometry), *On the Cylindrical Helix*, a work on unordered irrationals, and the *Quick Delivery*, in which he calculated the value of π to a high degree of accuracy.

RICHARD WALLACE

See also **Mathematics**

Biography

Active in the late 3rd century BC, Apollonius of Perge is best known for his work on *Conics* (of its eight books, four survive in Greek, three in Arabic, and one is lost). His only other surviving work is *On the Cutting off of a Ratio* which is preserved in an Arabic translation. Ptolemy says he also worked on the mathematics of astronomy.

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APOLLONIUS RHODIUS *c.*295–215 BC

Epic poet and scholar

Apollonius was born at Alexandria (cf. Strabo, 14. 655) or, less probably, at Naucratis (Athenaeus, 7 p. 283; Aelian, *De Natura Animalium*, 15. 23). However, he is generally called the Rhodian on account of his retirement in Rhodes, where be is said to have revised his epic after its supposed initial failure to impress the Alexandrian audience, and, through his poem and his work as a rhetorician, to have won the recognition of the Rhodians and even the citizenship of Rhodes. There is probably an element of fiction in this account, which may have been suggested by the existence of some variants quoted in the scholia, which seem to point to an earlier text. According to his two anonymous biographies (contained in the Laurentian manuscript of the *Argonautica* and probably incorporating material derived from the late 1st century BC) and the *Suda*, he was a pupil of Callimachus, with whom he is said to have quarelled over the merits of long traditional epics over short and highly finished poems. The supposed existence of such an enmity – a supposition based on rather flimsy evidence – is, however, rendered improbable by the many striking parallels in the work of the two poets. According to Oxyrhynchus papyrus no. 1241 (late 2nd century AD), Apollonius followed Zenodotus as director of the library in Alexandria (270–247 BC) and was succeeded by Eratosthenes. The *Suda* puts him after Eratosthenes, no doubt due to a confusion with Apollonius the Eidograph, who is mentioned in the papyrus as the successor to Eratosthenes.

Apollonius' lost works include prose tracts on Hesiod (in which he apparently rejected the *Ornithomanteia* but accepted the *Shield of Heracles* as genuine), Archilochus, Antimachus, and a monograph on Homer entitled *Against Zenodotus* (cf. the Venetian scholia on Homer, *Iliad*, 13. 657), a choliambic poem on Egyptian legends entitled *Canobus*, and *ktiseis* or poems on the origin or foundation of cities (a genre fashionable at the time and reflecting Alexandrian enthusiasm for local history and cult) such as Alexandria, Naucratis, Caunus, Cnidus, Rhodes, and possibly Lesbos. The only surviving example of his epigrams (if the attribution is reliable) is an attack on Callimachus (*Anthologia Palatina*, 11. 275).

He was the first ancient writer to divide his own work into books, and in their number as well as in their length, the four books of his epic follow Aristotle's advice in the *Poetics* (chapter 23) that ideally an epic should be as long as the series of three tragedies and one satyr play presented by each poet at a dramatic competition. The *Argonautica* (which runs to 5,835 lines) narrates how Jason and his followers sailed to Colchis by the Propontis and Black Sea (books 1–2), how he won the Golden Fleece with Medea's help (book 3), and how the ship returned home (book 4).

Among the poet's major literary antecedents may be mentioned the fourth Pythian Ode of Pindar, with its account of the Argonautic expedition, and the *Medea* of Euripides. However, Apollonius' main inspiration is Homer, and this influence permeates almost every aspect of his creation, and is most evident in set scenes. Thus the catalogue of the Argonauts (1. 23–233) corresponds to Homer's catalogue of ships in *Iliad* 2, while the description of Jason's cloak (1. 721–67) has been suggested by the shield of Achilles in *Iliad* 18. These scenes serve to bring out by contrast the significant differences in Apollonius' poem. The same is also true of individual characters in relation to their Homeric prototypes: compare Jason with Odysseus or Medea with Nausicaa and Circe.

The Hellenistic period was an age of scientific and scholarly achievement, and the Hellenistic poets considered this knowledge as part of their artistic material. In keeping with contemporary trends, therefore, Apollonius brings his scholarship to bear on his composition by explaining the causes (*aitia*) of names, cults, relics, customs, and natural phenomena. The scholia record many of the sources that he so diligently consulted. His learning stresses the significance of the Argonautic expedition as a voyage of acculturation, establishing Greek tradition. It has been suggested that the repeatedly positive evaluation of Greek culture (including cult and mythology) should be connected with the Ptolemaic context of the work, since the Ptolemies promoted themselves as the true heirs and champions of Classical Greek culture (Hunter, 1993, chapter 6).

Apollonius was also the first Greek poet to place love in the foreground of the action in an epic and to study its psychology, thereby creating a new trend in western literature. Although he is dealing with a heroic legend, its central theme is not war but love. The capacity he shows for sympathetic analysis in his account of Medea's love for Jason is something not found in earlier Greek literature, with the possible exception of Sappho, whose work, however, has survived only in fragments. His descriptive power is revealed in the many charming *ekphraseis* (descriptions) with which he adorns his poem, once more in keeping with Hellenistic tradition. He also introduces a number of striking and suggestive similes. These descriptions and similes, as well as his fresh treatment of old episodes, serve to attract the reader.

The principal defect of the poem, according to some modern critics, is its lack of structural unity. In their view, Apollonius fails to organize into a whole his abundant array of erudite material, and too often the narrative breaks into long, disjointed passages. It has been pointed out, however, that discontinuity is Apollonius' principle of composition, and that this principle operates in the organization of the narrative both within the book and between books. Although constructed with great care, especially in its versification, its uniform mediocrity often makes the poem positively tedious. He has also been criticized for weak characterization. His Jason lacks the energy expected of a heroic leader, and lacks sufficient development to attract the reader's interest. In each of the two last books where she appears, Medea, as impressionable virgin and dangerous sorceress respectively, is inconsistent (when seen against Aristotle's requirement of consistency for the dramatic character), though she is beautifully drawn and the gradual growth of her love for Jason is described with a truly artistic moderation.

His hexameters generally follow the Homeric pattern, and so does his vocabulary. However, in keeping with the usage of Alexandrian authors, he continually varies and "interprets" the Homeric words and phrases. His greatest stylistic achievement is in fact the subtle adaptation of the Homeric language to express the romantic sentiments of his own age, but its brevity and conciseness are in marked contrast to the natural and easy flow of the Homeric poems.

The *Argonautica* appears to have enjoyed considerable popularity even during Apollonius' own lifetime, for we hear that contemporaries, such as Charon, wrote commentaries on it. Our present scholia are abridged from the commentaries of Lucillus of Tarrha, Sophocles, and Theon, all of whom apparently belong to the pre-Christian era. There are 52 known manuscripts, and numerous papyri testify to the poem's popularity in later antiquity. There are two sets of scholia: the Florentine and the Parisian. The former were published in the edition by J. Lascaris (Florence, 1496), and the latter were first published in Schaefer's edition (2 volumes, Leipzig, 1810–13) and consist mainly of verbal explanations and criticisms. The scholia also speak of one Eirenaius as the author of a critical and exegetical commentary. During the reign of the Byzantine emperor Anastasius I (AD 491–518), one Marianus paraphrased the *Argonautica* in 5608 iambics. In recent times the *Argonautica* has attracted the serious attention of scholars. Surprisingly, there were no English translations of the *Argonautica* until those of K.P. Coleridge (1889), R.C. Seaton (1912.), and E.V. Rieu (1959). However, Between 1990 and 1997, three new translations appeared, by Barbara Hughes Fowler (1990), Richard L. Hunter (1993), and Peter Green (1997).

D.P.M. WEERAKKODY

See also **Poetry (Epic)**

Biography

Born *c.*295 BC probably in Alexandria, Apollonius is called the Rhodian because he retired to Rhodes, apparently to revise his epic poem, the *Argonautica*, after its poor reception in Alexandria.

A pupil of Callimachus, he was director of the Alexandria library after Zenodotus and before Eratosthenes. Lost works include prose tracts on other poets and poems on the foundation of cities. He died in 215 BC.

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APPIAN *c.*AD 95–160s

Historian

Appian was a Romanized Greek, who was born in the dynamic but turbulent city of Alexandria in Egypt. Josephus refers to the "constant strife between the natives and the Jewish colony" (*Jewish War*, 2. 487) that had existed ever since Alexander the Great had given the Jews permission to reside in the city with the same rights as the Greeks. One dramatic fragment of Appian's lost autobiography relates his narrow escape from an angry group of Jews during the Jewish revolt (AD 115–17). This personal experience of civil unrest may help to explain why Appian devotes such a large proportion of his historical narrative to the Roman civil wars of the 1st century BC. Subsequently, he left Alexandria and moved to the more secure environment of Rome, where he became an advocate and was eventually awarded a procuratorship. We have a letter from Fronto to Antoninus Pius (emperor AD 138–61) requesting this position for his friend.

Appian's most important achievement is his historical work, the *Romaica* (written between *c.*AD 148 and 161), which narrates the rise of Rome and its progressive conquests of different nations "in order to understand the weaknesses or endurance of peoples, as well as the virtues or good fortune of their conquerors, or any other factor which contributed to the result" (preface, 12). This focus recalls the pragmatic historiography of Polybius (*c.*200–*c.*118 BC), who in the *Histories* likewise seeks to explain the growth of Roman power. Yet where Polybius analyses a 53-year period in 40 books, Appian's chronological scope is broader, moving from the kings of Rome to Trajan's war in Arabia in 24 books. The *Romaica* are structured along geographical and ethnic lines, with each book usually devoted to a particular people, although book 8 (Hannibal) and book 12 (Mithridates VI) break the pattern by focusing on individual enemies of Rome.

We do not have Appian's whole work, but what survives is impressive and revealing. Appian was writing for a cultured Greek-speaking readership, who wanted to understand more about Roman history and institutions. Consequently, the narrative is punctuated with practical explanations, which frequently remind us that Appian is looking at Rome from the viewpoint of the provincial outsider. So, the military eagle is described as "the symbol held in the highest regard by the Romans" (*Civil War*, 2. 61. 256). Not only does Appian offer explanations of potentially unfamiliar terms, but his Greek prose is accessible and sometimes even includes transliterated Latin words. The 9th-century Byzantine scholar Photios approvingly characterized Appian's Greek as "plain and unadorned". The discovery of a papyrus at Dura Europos containing fragments from Appian and Herodotus suggests that the Alexandrian historian was indeed popular. Some modern critics suggest that Appian's main significance lies in his preservation of crucial material from lost historians such as Asinius Pollio, but this is to undervalue the *Romaica*. Appian in his own right made Roman history accessible to an inquisitive Greek-speaking audience, who were themselves increasingly involved in government and administration within the empire. That there was an appetite for historical texts about Rome among this mobile, Greek-speaking elite is suggested by Zenobius' translation of Sallust's works into Greek under Hadrian. Of course, Greek speakers could always turn to the universal histories of Nicolaus of Damascus or Diodorus Siculus, but these were almost too comprehensive (144 and 40 books respectively), and both narratives stopped in the 1st century BC. The expansion of the Roman empire between the reigns of Augustus and Trajan called for an updated history, which Appian provided.

Although the *Romaica* helped to orientate Greek-speaking readers in the Roman world, Appian could still criticize Roman methods and shortcomings. So Appian narrates the proscriptions with particular disgust (*Civil War*, 4. 16), and outlines the sufferings of the people of Gomphi, including one incident where 20 distinguished elders, who had poisoned themselves, were discovered lying on the floor "as if they had succumbed to drunkenness" (*Civil War*, 2. 64. 268). Poignantly, Appian juxtaposes the genuine inebriation of Caesar's callous soldiers with the apparent drunkenness of these desperate citizens. It is at such moments that Appian's background as a provincial offers us some uncompromising perspectives of Rome.

Appian's *Romaica* survived, albeit in a fragmented state, largely thanks to the efforts of the excerptors who worked for the emperor Constantine VII Porphyrogennetos (913–59). The first printed edition (Venice, 1477) was a Latin translation by Pier Candido which had been commissioned by Pope Nicholas V. The popularity of this edition prompted first an Italian translation (Rome, 1502) by Alessandro Braccio on the foreign wars,

and a French translation (Lyons, 1544) by Claude de Seysell dedicated to King Louis XII of France. Seysell's translation inspired several baroque dramatists, including Pierre Corneille, who took material from Appian for his tragedy *Rodogune* (Paris, 1647). Yet no printed text of Appian in Greek appeared until Carolus Stephanus' edition (Paris, 1551). The first English translation (London, 1578), by William Barker, was grandly entitled *An Auncient Historic and Exquisite Chronicle of the Roman Wanes, with a Continuation from the Death of Sextus Pompeius till the Overthrow of Antonie and Cleopatra* and praised Appian as a "noble orator and historiographer". Since Appian's narrative of the civil wars ends with the death of Sextus Pompey, Barker decided to supplement the account with material from Plutarch. Subsequently, William Shakespeare used Barker's Appian when writing *Antony and Cleopatra* and especially *Julius Caesar*. Appian's work remained popular, although not everybody had to rely on translations. In a letter to Engels, Karl Marx wrote: "As a relaxation in the evenings I have been reading Appian on the Roman civil wars in the original Greek. A very valuable book. The chap is an Egyptian by birth. Schlosser says that he has 'no soul', probably because he goes to the roots of the material basis for these civil wars." So, from the late 15th century onwards, Appian has continued to appeal to notable dramatists and intellectuals seeking to gain access to the Roman world through a lucid and accessible historian, who originally wrote to inform a predominantly non-Roman audience.

RHIANNON ASH

Biography

Born in Alexandria *c.*AD 95, Appian experienced the Jewish revolt of 115–17 before moving to Rome where he became an advocate and later a procurator. He died in the 160s. He wrote a history of Rome in 24 books for a Greek-speaking readership. Beginning with the kings of Rome, it is organized on geographical and ethnic principles, and ends with Trajan's war in Arabia. Not all of it survives.

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APULIA

Region of southeast Italy

Apulia (modern Puglia) has been associated with Greek culture since antiquity. The region has Messapian or Greek foundation legends, mentioned already in the writings of Herodotus (7. 170). The name Iapygia is used by Greek writers to denote the same region, although it also refers to the region of Calabria. Many places in Apulia were colonized by Greek cities by the end of the 8th century BC, but that was just the climax of a long history of contacts between the Greeks and the autochthonous population of Italy. One of the most important cities of the area, Tarentum (ancient Greek Taras, modern Taranto), was supposed to have been founded around 706 BC by Spartans as their only colony. The gulf of Taranto had already been colonized by Achaeans from the Peloponnese, who first established Sybaris in 721 BC and then Croton and Metapontium. Taras, the only Dorian colony, was founded after the first Messenian War (traditionally in 706 BC), an example of the tensions in Greece that led to colonization. The founders came from Amyclae, an ancient sacred town of the Spartan state, and according to Strabo (6. 3. 2f.) were linked to Spartans by the maternal side only; they were thought to be illegitimate children of unmarried women, thus they had the name *partheniai* ("sons of concubines"). It is possible that they were of pre-Dorian origin. They were guided by an oracle to establish a colony in the west, and this is typical of the role of religion, and oracles in particular, in sanctioning new settlements. One of the first things that the colonists would do was to establish their religion.

The Greek colonies in Apulia flourished thanks to the craftsmanship and trade that soon developed. Taras, in particular, owed its prosperity to the textile and pottery industries that were soon supplying the rest of Italy. Taras was also famous for its jewellery, as the exquisite collection of the modern archaeological museum bears witness today. Many of the most important archaeological finds were made only as a result of bombings in World War II. Sybaris was proverbial for its wealth and luxury (Herodotus, 6. 126) and had developed commercial relations with Miletus in Asia Minor. After the initial colonization, many of the cities were able to found further colonies; thus Sybaris founded Poseidonia (the Latin Paestum) on the west coast of Italy. Metapontium, Sybaris, Croton, Siris, and Paestum are known as the "Achaean" area, a term that refers not only to the origin of many of the colonists but also to the artistic styles that were developed there. The artistic currents of Magna Graecia combine many elements.

Sybaris was destroyed by Croton in 510 BC,and the city of Thurii was funded on its site, at the initiative of Pericles, in 444 BC. The famous city planner Hippodamus of Miletus designed the city and was himself one of the leading colonists. This was a part of the ambitious strategy of Pericles to make Athens the centre of a greater Greece. The geographical situation that gave all these cities immediate access to the sea and a fertile hinterland was a significant factor for their later development. This

economic growth was soon to be followed by cultural development. Apulia, together with Calabria and Sicily, constituted the region of Magna Graecia. The region of Apulia drew the attention of Rome at the end of the 4th century BC and the Tarentines invited king Pyrrhus of Epirus to assist them in 280 BC. During the Hannibalic and Social Wars there were serious revolts against Rome, which were followed by the destruction of many Apulian cities. After it was annexed to the Roman empire, the region experienced troubled times. Under Diocletian Apulia and Calabria formed a single province. Christianity reshaped the cultural history of the region.

ANDROMACHE KARANIKA-DIMAROGONA

See also **Magna Graecia**

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ARABS

Herodotus was familiar with the Arabs of southern Palestine and the Sinai as well as those of the frankincense-producing region. According to him the Arabs were among the nations that paid tribute to Darius I of Persia (Hderodotus, 7. 69, 3. 97). But it was the expeditions of Alexander the Great in the region of the Red Sea that brought greater knowledge of the Arabs to the Greeks, as reflected, for example, in the partially preserved work of Agatharchides, the source of Diodorus Siculus' description. According to Arrian (*Anabasis*, 7. 19. 5), Alexander's last plans included the conquest of the eastern Arabian coast, and in preparation for this he dispatched naval expeditions to both the Persian Gulf and the Red Sea. The presence of Hellenistic Greeks in Bahrain and especially in Failaka, and Antiochus III's expedition to Gerrha in the Saudi interior, reflect early interest in Arabian and Indian trade on the part of the Seleucids. Ariston explored southwards as far as Babel-Mandeb for Ptolemy, who punished the hostile Nabataeans of Petra by tapping the incense route to the south of the city through a trade arrangement with the Lihyanites of Dedan. During Hellenistic times the northern territories as far as the Negev and Transjordan were inhabited by the Nabataean Arabs, who developed their land through skilful water conservation. The southern kingdoms were Minaea on the Red Sea, Katabania at the straits of Hormuz, and Sabaea, the Hadramaut, and Mhra along the south coast. Minaea had ceased to exist by the 2nd century BC and Yemen was dominated by a confederacy of Sabaeans and Homerites. Apart from these petty kingdoms of the south and the north, and to a large extent within them, the political organization of pre-Islamic Arabia was a primitive kinship structure united in clans and tribes which were named after a supposed common ancestor. As a political unit, pre-Islamic Arabia existed only in the careless nomenclature of the Greeks, who used the name Sarakenoi (apparently from the Arabic *Sharqinun*, "easterners") to denote all the population of the peninsula.

For his accounts of the Arabs of Mesopotamia (along the Euphrates), Egypt (Sinai and the Red Sea), southern Jordan (the Nabataeans), the steppe, and eastern Arabia (Gerrha), Strabo depended on Hellenistic sources as well as the Arabian campaign of Aelius Gallus under Augustus. Although this expedition ended in failure, Roman naval predominance in the Red Sea was secured, and the movement of Roman merchantmen between Egypt and India was facilitated by the reduction of Aden, whoever may have been responsible for it (*Peripl. M.E.* 26).

For the Greeks and the Macedonians, Arabia was important chiefly for its incense and spices as well as for gold and gems. They also depended on the Arabs as middlemen for their Indian trade. However, the importance of this role diminished after Hippalus discovered the use of the monsoons for annual direct voyages to India. It is sometimes claimed that this practice was already known to the Arabs for centuries and that the Greeks merely learned from them; but one has to question whether Arab ships of the time were capable of such voyages even if the Arabs knew the "secret" of the monsoons. For both Classical and biblical authors, the defining characteristics of the Arabs were nomadism, pastoralism, and the camel-based caravan trade. However, their military strength is already mentioned in early (Assyrian) sources, and becomes prominent in Roman times. The organization of the southern sector of the *limes* shows that the Romans of the empire took account of their historical role, their steady pressure on the settled lands of the north, and their infiltration into the Syrian end of the Arabian peninsula. The evolution of this military frontier-in-depth from the Euphrates to the Red Sea involved absorption of the client Nabataeans into the Roman provincial system. This was achieved by Trajan in AD 106 through the expedition of Cornelius Palma. The resulting province of Arabia expanded slightly to the north under Septimius, and was divided by Diocletian into Arabia and Palaestina Salutaris, the latter subsequently incorporated into Palestine around AD 358. During the 4th and 5th centuries the *limes* was strengthened in response to the Saracen threat; but by the 6th century it had fallen into decay, so that the Muslim Arab invasions of the early 7th century found it no obstacle. The Arab *foederati* who (with the Phylarch as their chief) shared with the *limes* the defence of the Roman east, included the Tanukhids of the 4th century, the Salihids of the 5th, and the Ghassanids of the 6th.

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ARATUS

Author of astronomical poetry of the 3rd century BC

Aratus, the author of *Phaenomena*, the most influential poem in ancient Greek after the Homeric epics, flourished in the first half of the 3rd century BC. Four ancient *Lives* and the entry in the *Suda* combined show that he was horn in Soli in Cilicia, that he studied in Athens, where he associated with Callimachus and the philosophers Timon of Phlius and Menedemus of Eretria, and that he was taught Stoicism by Zeno. The only sure date in his biography is 277/76 BC, when king Antigonus Gonatas brought him into the royal Macedonian court at Pella. After a time in residence at the court of the Syrian king Antiochus, Aratus returned to Pella, where he predeceased Antigonus (d. 240 BC).

Aratus composed many works, including a scholarly commentary on Homer's *Odyssey*, a hymn to Pan that celebrated Antigonus' defeat of the Celts in 277 BC, epigrams (two survive), other elegiac poems, funeral dirges, a hexameter poem called *Iatrica* (''Medical Healing''), a poem about the harmony of the spheres called the *Canon* (''Table''), and *Astrica* (''On Stars'') in at least five books. This list may include a collection called *To Kata Lepton* (''Works Slenderly Composed'', from which the collection in the *Appendix Vergiliana* derived its title), or that descriptive may apply to Aratus' poetic style generally. His only surviving work is the *Phaenomena*, a didactic epic poem in the style of Hesiod that deals with the astronomical constellations and with weather prognostication. The poem consists of 1154 hexameters: a Stoic proem to Zeus, whose influence pervades the poem (1–18); the constitution of individual constellations in the northern and southern skies (19–453); the planets (454–63); the measurement of time and how to mark nocturnal time by simultaneous risings and settings (462–757); weather signs (758–1141); and a conclusion (1142–54).

The first *Life* explains that Antigonus commissioned the *Phaenomena* by asking Aratus to versify the prose treatise on astronomy by Eudoxus of Cnidus (*fl.*340 BC). The extant commentary by Hipparchus details the relationship between Aratus' poem and Eudoxus' source material. Although Aratus' astronomical inaccuracies disturbed Hipparchus, the poem enjoyed immediate recognition and lasting success among readers who were taken by its poetic achievement. The *Phaenomena* masterfully proceeds in an epic style calculated to emulate Hesiod, whose reputation flourished in the early 3rd century BC, the golden age of Hellenistic poetry. Aratus' literary accomplishment was not lost on contemporaries. The great Hellenistic poets Callimachus (*Epigrammata*, 27) and Leonidas of Tarentum (*Anthologia Palatina*, 9. 25) praised Aratus' refinement – each using the adjective *leptos* (subtle) particularly – and Ptolemy Philadelphia stated in an epigram (*Supplementum Hellenisticum*, 712) that the *leptologos* (subtle-tongued) Aratus deserved to wield the sceptre among poets on astronomical topics. This terminology suggests that the poet's intended audience was an elite readership with interests in literary esoterica.

That some 20 subsequent authors wrote commentaries on Aratus or composed *Aratea* demonstrates the breadth of the poem's influence. It is among a handful of Greek poems to have been translated anciently into Arabic. And its influence on Roman poetry is of tremendous importance. The influence is manifest in the great didactic hexameter poems written by Lucretius and Virgil (*Georgics*) in the 1st century BC, both clearly having been influenced by Aratus' style. Latin poets exhibited a ''strong urge to win Aratus for Latin'' as part of a patriotic move to ''absorb the three great poets [i.e. Callimachus, Theocritus, and Aratus] of the classic Hellenistic generation'' (Courtney, 1993). This urge was made manifest among the new poets by China, who brought a copy of Aratus back from Bithynia; by Varro of Atax, whose *Ephemeris* closely recalls Aratus in its extant fragments; and by a youthful Cicero himself, whose *Aratea* consists of 480 continuous lines and some 70 additional lines called the *Prognostica*. Virgil mines Aratus for material in a remarkable passage of the *Georgics* (1. 351–460). Although Ovid's *Phaenomena* survives in only two fragments, both bear strong resemblance to Aratus. Germanicus modernized Aratus, fitting the whole into 725 lines, of which 200 are not based on Aratus, and correcting some errors. Avienus (*fl.* mid-4th century AD) composed a version expanded by more than 700 lines over what Aratus himself had written: *Aratea Phaenomena* (1325 hexameters) and *Aratea Prognostica* (552 hexameters). This interest propelled Aratus into western literature with immense influence (Böker), which is still working today.

ROGER T. MACFARLANE

Biography

Born in the late 4th century BC in Soli in Cilicia, Aratus studied in Athens where he was taught Stoicism by Zeno and associated with Callimachus, Timon of Phlius, and Menedemus of Eretria. In 277/76 BC he was introduced to the Macedonian royal court at Pella by Antigonus Gonatas. He composed much poetry but only the *Phaenomena* survives, a didactic poem on astronomy. He died before 240 BC.

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ARCADIA

Region of the central Peloponnese

Arcadia is a mountainous region in the centre of the Peloponnese rising to heights of more than 2000 m. It did not gain political independence until late in the Classical period when in 366 BC Megalopolis, the "great city", was founded. But in 234 the poleis of Arcadia joined the Achaean League which became subject to the Romans. After the defeat of the Macedonians at the Rattle of Pydna in 168 BC, the Romans took 10,000 Arcadian nobles as hostages to Italy; among them was Polybius, who was later to become an admirer of Roman imperialism. The destruction of Corinth in 146 BC also resulted in the end of Arcadian liberty.

Arcadia was not only a physical landscape; it became also a mental landscape ("geistige Landschaft"; as described by Bruno Snell in *Die Entdeckung des Geistes*), representing a cultural idea on which certain ideals were based. Poets of the Hellenistic period made Arcadia the scene of a charming but unrealistic poetry of shepherds and other herdsmen, chief among whom was Pan, the lewd god of the herdsmen with the legs of a billygoat who was always playing the panpipes. The bucolic genre, however, did not arise in Arcadia, but in Sicily (Theocritus, the Greek representative of bucolic poetry, was born in Syracuse).

It was the Roman Virgil (70–19 BC) who combined Arcadia and bucolic poetry. He knew the historical work of Polybius with its warm description of the inhabitants of old Arcadia, and he wrote the *Bucolica*. Thus Virgil founded a special genre for all European literatures.

JOHANNES IRMSCHER

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ARCHAEOLOGY

Our knowledge of Greek culture was originally derived from written documents, historical texts, and other literature, transmitted through the Middle Ages and the schools of Constantinople. It was largely the dispersal of Byzantine manuscripts to the west that led to the revival of interest in ancient Greece and its achievements, and the development of Classical Greek studies as a fundamental part of western education. At the same time, the conquest of Greece by the Ottoman Turks made Greece difficult of access, and Greek remained essentially a matter of book learning. Travellers such as Cyriac of Ancona, who visited and recorded surviving monuments in the mid-15th century, were most exceptional.

During the 18th century there was a considerable development of interest in the physical remains of antiquity, particularly in Italy. Antiquities were collected by wealthy aristocrats making the Grand Tour, and excavation was carried out at ancient sites, above all Pompeii. The Greek remains in southern Italy, especially the temples at Paestum, came to be known, appreciated, and even copied (e.g. the columns in Joseph Bonomi's church of St James at Great Packington in Warwickshire, of 1789–90). More crucially, in 1751 the aristocratic Society of Dilettanti sent James Stuart and Nicholas Revett to Greece itself, to produce accurate measured drawings of the ancient Greek buildings in Athens and elsewhere, as exemplars for Greek Revival architecture. This was a real stimulus to antiquarian interest in the material remains of ancient Greece, even if there was in all this much of the approach that can be summarized as "Fair Greece, sad relic". From this time there was a steady stream of artists and architects visiting Greece to record the monuments.

All this was transformed, if slowly, by the War of Independence and the freeing of at least part of Greece. The recovery of the material evidence for ancient Greek culture now became a fundamental aspect of the national heritage, and even as Karl Friedrich Schinkel was producing plans for his "dream palace" to house the Bavarian king Otho on the Acropolis of Athens, Kyriakos Pittakis (the brother-in-law of Theresa Makri, Byron's Maid of Athens) was struggling to recover and preserve the fallen and scattered fragments of Classical buildings and sculpture as the Turkish structures there were demolished. The new Greek state passed its law of 10/21 May 1834 that concerned the uncovering and conservation of antiquities. Already, in 1829, Kapodistria had established the Archaeological Service, and in 1833 Adolf Weissenberg had been put in charge of "the conservation, discovery and collection of the archaeological treasures of the Kingdom", with Pittakis responsible for northern Greece, J. Kokkonis for the islands of the Aegean, and Ludwig Ross for the Peloponnese. In 1837 came the foundation of the Archaeological Society of Athens.

Their work was undoubtedly hampered by the poverty of the newly independent state. At first there were very few purpose-built museums (that on Aegina was one of them). At Athens antiquities were stored in the Theseum (temple of Hephaestus), in the Propylaea, in a Turkish cistern in front of the west end of the Parthenon, and in a Turkish house behind the Erechtheum. Conservation work was often crude; although the temple of Nike was resurrected from the Turkish gun bastion into which it had been incorporated, the patching of the Erechtheum was elementary, while the north wall of the Parthenon was supported by a rough and intrusive structure of brickwork.

Into this context came the foundation of the foreign schools, beginning with the French in 1847, which brought much greater resources to the development of Greek archaeology, whether state-supported or funded by wealthy individuals. There was increasingly a new approach, the transformation

from collection and antiquarianism to scientific archaeology. Already in the 1850s Charles Newton was emphasizing, in his proposals to excavate the Mausoleum at Halicarnassus, the need for a proper archaeological approach (which he achieved with the recording of his work, including the use of photography), even though, by digging in what was still the Ottoman empire rather than Greece, his main purpose was to acquire material for the collections at the British Museum. At the same time, significantly, he was stressing the need for archaeology to be recognized as an essential element in the study of Greek civilization.

From this time, archaeology has transformed our knowledge of Greek culture. In many ways, the most significant single development has been the discovery and ongoing interpretation of Greek prehistory. Excavations at the major prehistoric sites, on the mainland at Mycenae, Tiryns, Pylos, and a whole host of other places, together with those on the island of Crete, have revealed a complete new world of Greece before the Classical Greeks. The discovery at Knossos, Pylos, and elsewhere (most recently, under the streets of modern Thebes) of the Linear B tablets, and their brilliant decipherment in the 1950s by Michael Ventris, has brought us knowledge of the Greek language at a stage more than 500 years earlier than Homer, and with this an understanding of Greek society in a different form, centuries before the evolution of the Classical city states. It has shown us, too, the pre-Greek world of Crete, on top of which the prehistoric Greeks developed, and has enabled us to trace its formative elements from Egypt, the Near Fast, and Asia Minor. None of this was known before the excavations of Heinrich Schliemann, Arthur Evans, Carl Blegen, and many others.

Turning to the Classical period, archaeology has broadened immensely our knowledge of the Greek world at that time. In Athens we can now see the Agora, not just read about its involvement in the affairs of the city. We no longer have to rely on Thucydides' assurances to understand the physical contrast between the cities of Athens and Sparta. Even things of little significance in themselves make our understanding of the Classical world more real and vivid: we can now actually see the gash made in the forehead of Philip of Macedon by the arrow that removed the sight of one of his eyes at his siege of Methone; but more significantly, in the material that was buried with him in his vaulted tomb at Aegae/Vergina we can see something of the luxurious wealth that characterized his royal existence in the palace at Pella (whose plan itself has been revealed in recent excavations). Beyond the Classical period, archaeology traces (more clearly than the broken written record) the essential continuity of the Greek world; more attention than previously is paid to post-Classical remains, for example, in the excavations at Corinth.

The contribution of archaeology to our understanding of Greek culture can be divided into two broad categories: first, the recovery of actual material from the earth, and secondly its interpretation. Recovery is not confined to excavation. Surveys of extended areas, the study of the distribution of artefacts over the ground, give information about settlement patterns outside the obvious city sites, and their variation at different periods of Greek history, down to the present day. The study of surface evidence, as well as that from excavation, has given us the street plans of innumerable Greek cities. We can now see not only the great temples of the major religious sanctuaries, but also places of lesser, or even completely minor cults, and thereby understand more of the place that these cults had in the lives of the ancient Greeks. It is possible to see more of the workings of the cults, the objects deposited as offerings, the buildings associated with religious practice, often specialized such as those provided – for a select minority – for the ritual feasting that was an essential element of Greek religion. Archaeology has extended our documentary evidence for Greek civilization, above all the discovery and recording, already started by Cyriac of Ancona in the 15th century, of inscriptions. The range of these is immense: they include major historical events, such as the evacuation of Athens at the onset of Xerxes' invasion (though this inscription is later than the event, and raises problems of interpretation). From inscriptions we have the oath sworn by the founders of Thera's colony at Cyrene, records for building the temples at Athens, and of the development of the sanctuary of Asclepius (and thus the Asclepius cult) at Epidaurus. We can assess the tribute paid by the dependent states of Athens' empire, and read the lists of property confiscated from those who mutilated the hermae on the departure of Athens' doomed expedition to Syracuse. Excavation in Egypt, whether organized or, to use a euphemism, commercial, has produced the texts of literary works that did not survive the rigorous exclusions of Byzantine copying, but also more personal documents, bills, receipts, even the private letters of the Greeks in Hellenistic and Roman Egypt. The list is never-ending.

In short, archaeology has shown the complete context in which Greek civilization developed and flourished, as well as its periods of decline. It has given us a first-hand knowledge, not easily recoverable from other sources of information, of Greek art and architecture (which is Classical archaeology in its original meaning). Though much has been lost, discoveries are still accumulating. Without archaeology we would have no visual knowledge of the sculptures that decorated the temple of Zeus at Olympia, or of the marble masterpieces dedicated on the Acropolis of Athens in the 6th century BC and buried after their desecration at the hands of Xerxes' soldiers in 480 BC. Even if chance finds have given us the powerful bronze god (surely Zeus) fished up off Cape Artemisium, or the Riace warriors, plausibly if not with certainty attributed to Phidias himself, it is the techniques developed for the conservation of antiquities that have restored and stabilized them. The literary sources – such as Pausanias – tell us of important paintings, and tantalize us with their descriptions of lost masterpieces; archaeology has restored to us at least the masterpieces painted on the walls of the royal tombs at Vergina, revealed in the late 1970s by Manolis Andronikos, their colours as fresh as the day they were painted, their style compared by their discoverer with that of the old masters. These same graves, and others elsewhere, both in and beyond the Greek world, have produced for us splendid examples of Greek metalworking, in gold and silver as well as bronze, of which there are otherwise only the dimmest echoes in the ancient written sources.

Archaeology has also recovered much of the everyday aspects of Greek civilization. We now have examples of the houses in which the Greeks lived, generally reduced to foundations and footings, but with some better preserved, and certainly with more evidence to show what they were like when they were intact, ranging in date from the prehistoric to the present day, and from all levels of society. Archaeology has uncovered much

of the paraphernalia of everyday life, or at least that which was not made of perishable materials (in rare circumstances, even this has survived). The painted vases, too, illustrate not only legends and mythology, but also scenes from everyday life – in the house, at school, at the workplace, at the bottom of the mines, in the exercise grounds of the gymnasia. They show us the drinking parties, as well as the fun and games that went on there. But they also help to fill out our knowledge of contemporary houses, for they illustrate the furniture – couches, chairs, chests – and the way that objects were hung on the walls of the feasting rooms.

More specialized aspects of archaeology give us further information. Underwater research has been particularly rewarding, starting with the finds dredged up, like the Artemisium *Zeus*, by fishing nets, but more recently developing, thanks to advances in diving technology, into a branch of scientific research that not only locates wrecks but investigates and records them in every detail. The identification of such wrecks, and their cargoes, of all periods, has produced much information on patterns of trade in Greek waters, and wider afield in the Mediterranean. It has even led to the recovery of the remains of ancient ships, particularly the 4th-century BC Kyrenia wreck, which has given us information about the relative longevity of ordinary small trading vessels, and, most invaluably, about the technique of ship construction.

With archaeology go the scientific techniques developed to assist in interpretation. Analysis of pollen, seeds and other vegetable remains in soils and in rubbish pits tells us about crops and diet. Analysis of pottery fabrics tells us where they were made, including the plain wares that were, with their contents, an important part of the export trade of Greece. If our understanding of the Greek world, from the beginning to the present day, is so much wider now than it was a century ago, or compared with the time when the texts were our only source of information, it is archaeology that has made the difference.

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See also **Inscriptions; Linear B; Pottery**

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ARCHAIC PERIOD *c.*700–479 BC

The Archaic period of Greece, which follows the Geometric and precedes the Classical period, is traditionally dated *c.*700–479 BC, for the Geometric style of pottery decoration ends and Orientalizing styles appear around 700 BC, while the end of the Persian Wars in 479 BC marks a significant turning point in Greek history. Some, however, especially archaeologists, like to distinguish the first 100 years of this span (*c.*700–600 BC) as the Orientalizing period, and others prefer to start the Archaic as early as *c.*750 BC so that its beginning coincides with the Greek renaissance. Some recent scholars would also like to end the Archaic period *c.*500 BC, somewhat earlier than the traditional date of 479.

The Archaic period is marked by some of the greatest achievements of the Greeks, visible in such diverse areas as pottery and sculpture, the architecture of the great temples and sanctuaries, lyric poetry, philosophical speculation, and the shift to new forms of political organization. In most respects these achievements were the direct result of developments begun at the time of the Greek renaissance from *c.*750 BC on. The great colonization movement that had begun then continued during this period. Most of the Greek colonies had been established in the west by 650 BC and in southern Italy and Sicily later became known as Magna Graecia because of the large number of newly established Greek settlements there. The Greeks, however, also went further afield, into France and Spain, North Africa and the Near East, and, in fact, the colonization movement did not end until about the middle of the 6th century BC.

This was an era of great thinkers and writers. In Ionia Greek philosophy was born. Thales, Anaximander, and Anaximenes, all from Miletus, sought answers to profound philosophical questions, but elsewhere other schools evolved, each with its own ideas and followers, and significant advances were made in science and mathematics. In literature lyric poetry replaced epic poetry; instead of sweeping accounts of gods and heroes as in Homer's *Iliad* and *Odyssey*, this was personal, often very poignant poetry, filled with the range of human emotions. Archilochus, Alcman, Mimnermus, and Sappho all wrote at this time.

The shift in poetic style can be seen as a symptom of this new age, which was a time of political and social transformation. The poleis – the city states – were now consolidated, but the era was one of turmoil and revolution, as well as of greater individualism, as the work of the lyric poets demonstrates. At the beginning of the 7th century BC city states were typically ruled by aristocracies that were generally quite conservative in outlook and, in some respects, greedy and corrupt. Time had come for change, however, and in many city states this meant the adoption of tyranny. The first tyranny on the Greek mainland was in Corinth, where Cypselus took power from the noble Bacchiad family in the 650s BC, and most of the other major states followed suit, with the notable exceptions of Sparta, where two royal families continued to rule, and Athens, where tyranny came relatively late – in the mid-6th century BC.

The 7th century BC also represents a time of significant change in artistic style. This was the so-called Orientalizing period, when Greece accepted much influence from its eastern neighbours. It was the heyday of Corinth and it was there that

the Geometric style first came to an end (*c.*720 BC) to be replaced by a new Orientalizing ware known as Protocorinthian. Both incision and polychromy were used to great effect and new motifs, generally inspired by the east, made their appearance on the pottery: floral motifs were employed, as were representations of real and imagined creatures such as lions, sphinxes, and griffins. Corinthian artists are especially known for their miniature pots; exquisitely decorated and filled with oils and perfumes, these were bound for export not only within Greece itself but also to the colonies, and they attest the pre-eminent economic position enjoyed by Corinth at this time. By the later part of the 7th century BC, however, Protocorinthian pottery became mass produced, a victim of its own success, and with this a noticeable change, not to say decline, set in. By the time that the so-called Corinthian ware (the successor of Protocorinthian) had established itself towards the end of the 7th century BC, Corinth's position of wealth and economic dominance was waning and would soon be eclipsed by Athens, whose fortunes were on the rise.

The Orientalizing period also saw the appearance of the type of sculpture known as Daedalic. The eastern, particularly Egyptian, characteristics of such sculpture are obvious in the very stiff frontal pose of the figures, depicted with arms at their sides and heads with triangular faces, low foreheads, and stylized hair. These statues were the forerunners of the famous *kouroi* (male) and *korai* (female) statues of the 6th century BC.

Sculptures are often associated with sanctuaries that themselves grew and prospered throughout the 7th and 6th centuries Be An emphasis on public religion had begun in the geometric period, but it was in the 7th century BC that the temple became the religious focus of poleis all over the Greek world. Essentially a home for the deity, the temples, which had started life as wood or mud-brick constructions, some as early as the 8th century BC, were now built of stone and followed newly defined rules of architecture – the Doric and Ionic canons. The typical Greek temple comprised three rooms and had a colonnaded porch that surrounded the building. Besides the individual temples built in the poleis there were also the great Panhellenic sanctuaries that received worshippers from all over the Greek world and which were also venues for various types of competitions, particularly athletic and musical ones. The most famous of these sanctuaries were Delphi and Olympia, but others, such as Isthmia, Nemea, Delos, and Dodona, also enjoyed widespread renown. Delphi was known particularly for its oracle of Apollo and it acquired great prestige with visitors coming from all over Greece to receive advice and offer dedications there. Dedications, such as large bronze tripod cauldrons and figurines, demonstrate the popularity already enjoyed by Olympia in the later part of the Geometric period. As the home of the Olympic Games, the first celebration of which is traditionally dated to 776 BC, Olympia came to achieve a very prestigious position in the Archaic period. Treasuries as well as various other buildings, both religious and secular, were erected throughout the Archaic period at both sanctuaries.

In sculpture the 6th century BC was the time of the *kouroi* and *korai* which may, in general, be described as idealized portraits of young adults, the *kouroi* being nude males and the *korai* clothed females. Normally the *kouroi* stand stiffly, one leg slightly forward and their arms held tightly at their sides and, on their faces, the famous Archaic smile. These stone statues, many of which acted as grave markers, are often life-size or larger, but their features are not sufficiently distinct to be intended as individual portraits of the deceased; these are men shown in the prime of life – an idealization of manhood. With the *korai* the situation is somewhat different: many appear in sanctuaries as dedications and, while identification remains problematic, it is felt that some may represent votaries. The *korai*, which also show the Archaic smile, are normally clothed, and various colours are used to highlight clothing, hair, jewellery, etc. While these statues are very stiff and block-like when they first appear, the sculptors gradually develop a softer approach in their work and, by the Classical period, have achieved a great degree of naturalism.

One of the major developments of the 6th century BC was the re-emergence of Athens as the leading state after having lost its pre-eminence to Corinth for about a century. This dominance is seen archaeologically in the appearance of Attic black-figure pottery which succeeded the proto-Attic style of the 7th century BC, itself characterized by Orientalizing motifs and an abandonment of Geometric conventions. The Athenian black-figure ware of the 6th century BC managed to surpass the Corinthian ware of that period and became as popular and widely exported as the Protocorinthian had been in the 7th century BC. Incision was used with such exactness and delicacy that finely detailed paintings were possible. Quite apart from the technical excellence of the pottery, the scenes that the painters chose have been an enormous and valuable source of information about all aspects of life, for Athenians are shown engaged in various everyday pursuits. Grape and olive picking are depicted, for instance, as are pottery making, sculpting, feasting, taking part in the Panathenaic Games (horse racing, wrestling, javelin throwing, etc.), going to school, and so on. Moreover these scenes have afforded glimpses of clothing and furnishing styles, of architectural details, and much more. Mythological scenes were also very popular and feature exploits of a number of heroes and deities such as Achilles, Ajax, Heracles, Athena, Poseidon, Dionysus, and the like. Signatures on the pottery help to identify individual potters and/or painters; among the most famous are Exekias and Amasis, both of whom were active in the 6th century BC.

Politically, too, Athens underwent great changes in the 6th century BC as the aristocrats were challenged, and although attempts at reform were undertaken, most notably by Solon in 594 BC, tyranny was established by Pisistratus in the late 560s BC. After twice being expelled, Pisistratus was able to take over power and command Athens until his death in 528/27 BC. Under his rule Athens flourished and, like his earlier Corinthian counterparts, he also patronized the arts and literature and did much to foster Athenian trade, commerce, and industry. The Acropolis became the centrepiece of Athens as the temple of Athena, the predecessor of the Parthenon, was begun. In general Pisistratus' reign was thus a time of peace and prosperity, but when his two sons took over power in 527 BC the character of the tyranny changed and became oppressive after one of them was murdered. The tyranny was finally overthrown in 510 BC and, two years later, in 508 BC, the Athenians developed a new type of political system, democracy, under the leadership of Cleisthenes. This gave the Athenian citizen a direct say in running the state. It should be noted, however, that women were excluded from this process. The polis system, and in

Athens democracy itself, was male-dominated and women were segregated and confined to specific gender-related and socially acceptable roles. The rules governing the role of women varied, however, according to class and status as well as from place to place; in Sparta, for instance, women enjoyed a much freer lifestyle as a result of Sparta's particular social system.

The end of the Archaic period is marked by the onset of the Persian Wars (490–479 BC), caused by the expansionist policies of the Persians. In these wars the two great Persian kings, Darius and then Xerxes, were defeated by a coalition of Greeks, although the brunt of the offensive was borne by Athens and Sparta. After the extraordinary naval victory of the Athenians at Salamis in 480 BC, the battles of Plataea and Mycale the following year mark the end of the Persian threat in Greece.

A. FOLEY

See also **Colonization; Philosophy; Poetry (Lyric); Pottery; Sanctuaries; Sculpture; Tyranny**

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ARCHILOCHUS

Lyric poet of the 7th century BC

Archilochus was born to an aristocratic family on Paros in the early 7th century BC, and his career and poetry exemplify trends in the Greek world during a period of great change in traditional social structures and attitudes. This was the era of Greek colonization and exploration in the Mediterranean and beyond, and Archilochus was a soldier and a wanderer, politically active, and involved in the later stages of the colonization of Thasos begun under his father, *c.*680 BC. Like Hesiod and the early lyric poets, his poetry moves away from the impersonal tone of Homer to one in which the individual is more prominent. The poetic persona that emerges from surviving fragments is consistently passionate, tough, practical, and impatient with pretension and traditional values: he appears as a devotee of war, poetry, women, drink, and, above all, survival.

Much of Archilochus' style and language is Homeric: no early poet could escape the influence of Homeric formulaic language, although Archilochus himself probably composed in writing rather than orally. Different from Homer is much of its subject matter and tone. The world of proud heroes and elevated expression gives way to one where the humbler details of subsistence in a harsh environment, quite absent from Homer, are given as much attention as loftier themes. One notorious poem records the loss of the poet's shield in combat with barbarians: the poem seems unbothered by what should have been a shameful loss – "let it go, I'll get another one just as good." Later sources allege that Archilochus' works were banned from Sparta because of such unsuitable content. Far away is the Iliadic view of death as a worthy end in itself: Archilochus' view is more that of an adventurer who fights for survival, not for glory and death. While such poems strike a new and un-Iliadic note, their atmosphere is not utterly dissimilar to that of the *Odyssey*, and Archilochus' persona resembles Thersites' in some respects. Very Odyssean is one poem in which he encourages his heart "neither to rejoice too much in delights nor be too vexed in troubles, knowing what sort of rhythm possesses man". His attacks on grandiosity and pretension are sometimes thought to reflect a newer, more egalitarian spirit in the newly founded city states of the Archaic age.

Ancient critics consistently link Archilochus with two great predecessors, Homer and Hesiod. His literary power is said to resemble Homer's; his attitudes and subjects are closer to Hesiod's, though he takes his individualism to a greater extreme. He is also the earliest Greek poet to write specifically about sexuality, sometimes using obscenities that are entirely

missing from Homer or Hesiod. He was especially famous in antiquity for an abusive iambic poetry whose forerunner was the apotropaic ritual abuse associated with the rites of Demeter, with whom iambic verse itself seems to have had a particular connection. Paros had an old Demeter cult with which Archilochus' family may have been connected. Such traditions also influenced mock-epics such as the *Margites*, and Aristotle makes iambic verse the antecedent of comedy. The obscenities in Archilochus can be remarkably mingled with tender romanticism, and this uniquely dual tone has made him very popular with moderns. In none of his poems is this duality more noticeable than in an unusually long fragment (Page, *Supplementum Lyricis Graecis*, 5478) in which an unidentifiable speaker tries gently to persuade a young woman to make love with him – when she suggests that her sister Neobule is more suitable for him, he abuses Neobule, calling her oversexed and past her prime.

The poem was a particularly important discovery, because of the most famous tradition about Archilochus. According to later sources, he was engaged to be married to Neobule, but when her father Lycambes broke the engagement off, he assailed the family with verses so vicious that they eventually hanged themselves. Nothing specific about the betrothal is found before Horace, but evidence from fragmentary comedy (Cratinus) suggests that the story was well known in 5th-century BC Athens. While some suspect that the story is fictional and derives from misunderstood ritual abuse, the names Lycambes and Neobule do appear in the fragments, and archaeological evidence has proved the reality of some others of Archilochus' addressees. Parian inscriptions indicate that both Archilochus and Lycambes were from leading families, and thus a proposed alliance between the two is plausible. Some of the Lycambes poems were expressed as beast fables, a form derived from Asia Minor that first appears in Greek literature in Hesiod, and later in Aesop. In these, Archilochus could give full rein to his anger while appearing detached and sardonic.

Archilochus' reputation abroad was that of a dangerous, angry man, but within Paros he posthumously acquired an almost heroic status. An inscription of the 3rd century BC describes an Apolline command to honour Archilochus along with the Muses, Apollo, Dionysus, and others, in a place dedicated to his memory. While it admits that the Parians banished him for his abuse, it also mentions the mass attack of impotence sent on them by Dionysus as a punishment for the banishment, and portrays Archilochus as a poet under divine patronage, whose immortality was prophesied to his father by the Delphic oracle. A later inscription, a biography of Archilochus by Demeas (a Parian historian of the 4th century BC), records his death in battle against the Naxians. Such inscriptional evidence tells of participation in embassies and battles, and the Parians apparently remembered him as more community-minded than his fiercely individualistic reputation would suggest: only a few fragments of songs with a community emphasis now remain.

The brilliant violence of his verses brought him admiration for his talent and condemnation for his subject matter in equal measure. Pindar condemns Archilochus' anger as unattractive and unproductive, but he was popular in 5th-century BC Athenian comedy: his apparent rejection of establishment values and pretension made him attractive to the democracy. Plato mentions him in the company of Homer and Hesiod, but does not recommend his writing as edifying. He was the subject of treatises by Heraclides of Pontus and Aristotle, and the Alexandrians included him in their canon of iambic poets along with Semonides and Hipponax. Apollonius Rhodius wrote a book about him, and while Callimachus mentions his ferocity with apparent disapproval, his own iambics were a kind of Archilochean revival. Aristophanes of Byzantium and Aristarchus of Samothrace wrote commentaries on the poems, but unsurprisingly they were omitted from the educational syllabus of later antiquity because of their tone and subjects. Archilochean papyri date from the mid-3rd century BC to the 3rd century AD. The early Church Fathers preserve some references and quotations: for them, Archilochus was undeniably great but a thoroughly bad character, all too typical of pagan behaviour. The emperor Julian forbade priests to read his work. It is probable that his poetry survived plentifully at least to the 5th century AD, but after Eusebius little is heard of him for the next few centuries. It is hard to know how much survived as far as Byzantium: such quotations as we have may well derive only from anthologies. The first Renaissance edition of his poems is Henri Estienne's *Carmina Poetarum Novem Fragmenta* (Paris, 1560).

SOPHIE MILLS

Biography

Born on Paros in the early 7th century BC to an aristocratic family, Archilochus left in disgrace for Thasos where he became a mercenary, eventually dying in battle against the Naxians. Probably the first major literate poet of the Greek world, he was ranked with Homer and Hesiod by ancient critics; but there is far more passion in his verses than in those of his predecessors.

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ARCHIMEDES *c.*287–212/11 BC

Mathematician and inventor

Archimedes was killed in the Roman sack of Syracuse in 212 or 211 BC, which gives us one of the few firm dates in the history of ancient science; if, as a 12th-century Byzantine author reports, he was 75 years old at the time of his death, he would have been born around 287 BC. His father, Phidias, was an astronomer, so that for Archimedes science was the family trade. He came from Syracuse, and did most of his work there, at the court of king Hieron II (and at least some of his writings were originally composed in the Doric dialect spoken in Syracuse); he also seems to have spent some time in Alexandria, and corresponded with the mathematicians Conon, Eratosthenes, and Dositheus, who were based there.

Both in antiquity and in the modern world Archimedes has principally been famous for two reasons: because of the ingenious mechanical devices he is alleged to have discovered; and through anecdotes representing him as the archetype of the scientist so absorbed in his work that he forgets about ordinary life. So it is reported that he would forget to bathe, and when his friends persuaded him to do so he would draw geometrical diagrams in the oil on his body; his death in the sack of Syracuse is said to have been brought about because he was so preoccupied with a geometrical problem that he spoke rudely to the soldier who came to capture him; most famously, while in the bath he reached a solution to the problem of how to find out whether gold that had been given to a craftsman to make a crown had been adulterated with silver, and was so excited that he forgot himself and ran naked through the street shouting "I have found it!" He is credited with the invention of a number of ingenious engineering devices. He is said to have supervised the construction of a massive 4,200-ton ship for Hieron II, and, when it was finished and no one knew how to launch such a large vessel, he supposedly devised a system of pulleys by means of which he was able to move it single-handed; this is of course impossible, because real pulleys (as opposed to mathematical concepts) waste energy through friction, and the whole story is perhaps a fiction designed to illustrate his work on mechanics, and particularly his saying "Give me somewhere to stand and I will move the world." Better attested is his construction of a number of moving models of the celestial sphere. He was also reputed to have invented the Archimedean screw (a device for raising water) and a hydraulic organ. The difficulty that the Romans had in capturing Syracuse was explained by the formidable defence put tip by the war-engines devised by Archimedes. In itself this is quite plausible, since in the Hellenistic and Roman periods mathematicians were involved in the construction and use of such machines as catapults. The account was, however, embroidered as time went on, and by the 2nd century AD we are told (by Galen) that he used burning mirrors to set on fire the Roman ships. The story became a favourite one for Byzantine writers, and indeed we are told that in AD 514 the philosopher Proclus used exactly the same technique to drive the fleet of Vitalian away from Constantinople. Though the report is not plausible, and is surely based on inferences from Archimedes' work on the geometry of optics, repeated attempts have been made to show that the device could work (most recently by a Greek journalist, whose practical demonstration, though spectacular, failed to convince sceptical historians that a burning mirror could be made into a practical weapon of war).

Archimedes' interesting eccentricities, and his engineering achievements, tended to obscure the importance of his mathematical work. So when the Roman Cicero, as quaestor in Sicily in 75 BC, rediscovered the tomb of Archimedes overgrown with thickets outside Syracuse, he reported that it carried on it a representation of a sphere and a cylinder. He seems, however, to have had no idea that this represents Archimedes' discovery of the ratio of the volume of a cylinder to that of a sphere inscribed within it (*On the Sphere and Cylinder*, 1. 34). Archimedes, in fact, was not only a great mathematician, he is also the only one of the truly creative mathematicians of antiquity whose work survives to any extent (since the surviving writings of Euclid and Apollonius of Perge are largely systematizations of the work of their predecessors). In pure mathematics, his greatest work is probably *On the Sphere and Cylinder*, on the volume and surface area of spheres and segments of spheres. Other works in the same field are: *On Conoids and Spheroids*, which deals with the solids created by the revolution of conic sections; *The Quadrature of the Parabola*, which is on the area of parabolas; *On Spirals*, dealing with the geometry of the so-called Archimedean spiral; and *The Measurement of the Circle*, which calculates upper and lower limits for the value of p. In these works Archimedes uses the methods of his predecessors, and especially Eudoxus' "method of exhaustion" with great ingenuity, and sets out his results in traditional Euclidean form. Another surviving treatise, *The Sand-Reckoner*, purports to be a calculation of how many grains of sand it would take to fill the universe, but is actually a demonstration of a method of writing very large numbers using base 100,000,000. He extended the scope of mathematical method by applying it to statics in *On the Equilibrium of Planes* (on centres of gravity and the theory of the lever) and to hydraulics (a subject he seems to have invented) in *On Floating Bodies* (known only in Latin translation until a Greek text was discovered in 1899).

Archimedes' account of his work in the prefaces to his treatises makes it clear that the discovery of a mathematical proposition, and the method by which it was discovered, was quite separate from the presentation and publication of the proof in Euclidean form. In 1906 a previously unknown work of Archimedes, *The Method*, was discovered in Constantinople on a parchment of the 10th century, which had been partially erased so that a Euchologium could be written over it. In this work Archimedes shows how he originally discovered a number of the propositions that are set out in Euclidean form in his other works. He treats figures as combinations of infinitely thin strips, to which the methods of mechanics can be applied, and to some extent anticipates the methods used by the discoverers of calculus in the 17th century. Archimedes himself regarded the method as insufficiently rigorous (and so published proofs in more traditional form). The discovery of this work gives us a rare opportunity to see one of the greatest creative minds of antiquity in action.

Some time in late antiquity (probably in the 6th century AD) the more elementary of Archimedes' works (and in particular *On the Sphere and Cylinder* and the *Measurement of the Circle*) were translated from Doric into Attic Greek, presumably to make them more accessible to readers. This development may be associated with the school of Isidore of Miletus (one of the

architects of Hagia Sophia in Constantinople), and is evidence of the continued use of at least some works of Archimedes in education. It was, however, not until the 9th-century revival of the study of mathematics in Constantinople that a proper collection of his works was made, which is the basis of the texts we have today.

RICHARD WALLACE

See also **Mathematics; Technology**

Biography

Born *c.*287 BC in Syracuse, Archimedes was the son of an astronomer. He worked mostly in Syracuse at the court of Hieron II, but he also visited Alexandria. He is best remembered for the many engineering devices he is said to have invented, but he was also one of the most creative mathematicians of antiquity. He died in the Roman sack of Syracuse in 212 or 211 BC.

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ARCHITECTURE

Domestic

Domestic architecture describes the space in which people live as private individuals and, generally, as part of a nuclear or extended family. Houses, often the least documented buildings in history, are part of an organic architectural fabric that over time continuously changes and adapts to the inhabitants' ever-evolving needs and desires. Houses are also primarily the domain of women, since women usually decide the arrangement of domestic spaces, keep them in good order, and tend the animals and garden that might form part of a household. Furthermore, beyond providing shelter and a space for familial gathering, houses may also accommodate religious, commercial, manufacturing, or agricultural activities that involve the extended family. In some cases, groups of families and individuals live together in multi-family buildings, thus blurring the line between private and public spheres. A review of domestic architecture through time elucidates not only the conditions of daily and family life, but also the broader context of historical, technological, and economic change. The stylistic details of a house reveal cultural alliances and influences, both within the community and in a broader geographical context. At the same time, however, domestic architecture is markedly conservative and resistant to change. Building methods and the arrangement of space both exhibit a tenacious attachment to traditional materials, techniques, and practices, which are primarily dependent on local resources and climatic conditions. Dramatic changes in building practices are invariably the outcome of major economic, political, and demographic restructuring.

Our knowledge of Classical Greek houses is derived primarily from the 1930s excavations of Olynthus, a town in Chalcidice that was founded in 432 BC according to the Hippodamian manner. While the orthogonal street grid resulted in the erection of buildings in blocks of equal size, housing lots varied slightly in size, undoubtedly the result of individual agreements among landowners. The ground space of a typical residential block was roughly a square measuring 17.2 metres per side. Larger houses had five to seven rooms, smaller houses had one or two. All had a small, interior, south facing courtyard, where many of the daily activities took place, notably cooking and often weaving. Several of the courtyards also had permanent altars, commonly dedicated to Zeus Herkeios. The houses were constructed of unbaked bricks, on a foundation of rubble. Pillars were mostly wooden, while the sloping roofs were covered with tiles. Water was supplied from the city cisterns or occasionally by a private cistern.

Athenian houses of the 5th and 4th centuries BC bore an affinity with those of Olynthus both in arrangement and in materials. Due to the irregular street pattern of Athens, however, both the houses and the rooms themselves were irregular in size and shape. The rooms of Athenian houses were arranged around a small, usually south-facing courtyard that could be reached either directly from the street, or through a narrow passage. In fact, the courtyard pattern is characteristic of most ancient Greek houses. Some courtyards had a porch supported by columns, on one or more sides. They were later paved with pebbles set in cement, while most floors were made of hard earth topped with clay. The walls of the principal rooms were covered with plaster and painted with a light colour wash. Literary sources frequently refer to the second storey of houses, though none has survived.

Despite the number of passing literary references to the different spaces, and their uses, within the ancient Athenian house, it is still impossible to match these descriptions to archaeological findings. For example, while texts make references to separate men's quarters (*andron* or *andronitis*) and women's quarters (*gynaikonitis*), archaeologists have been unable to identify such specific locations as little evidence exists of the character of individual rooms. This may also indicate a certain versatility of function among the rooms, depending on the season or on the special needs of the household. Another clear social distinction, that between free and slave inhabitants, is also absent from the physical remains of Athenian houses. Presumably, all men slept in the men's quarters and all women in the women's.

Women's work was confined to the house and included the care of children, the cleaning of the house and its contents, the preparation of meals and the processing of food for storage, as well as spinning and weaving to make clothing and bedding. Many professional men also used their house as a place of business. Marble cutting, pottery making, or metalworking often took place in the courtyard. Rooms that opened directly on to the street were used as offices, workshops, retail shops, taverns, or warehouses. Wealthier and poorer housing quarters were not necessarily mutually distinct. Finally, the majority of Greek towns, including, to an extent, Athens, were home to farmers who worked the surrounding countryside. Wealthier city dwellers maintained handsome residences in the countryside as well. These were not only more spacious than most of the town houses, but also more regular in plan, as the space occupied by town dwellings was restricted by the irregular street pattern.

New socio-economic conditions during the Hellenistic period brought about the creation of a new urban class of merchants,

manufacturers, retired soldiers, and civil servants who prospered in the unified Hellenistic world of the Mediterranean basin and who were able to afford larger and luxurious villas. Architects experimented with new building methods and artistic trends, creating impressive domestic complexes. The layout of Hellenistic houses is similar to that of the houses at Olynthus, but larger and more elaborate. The finest surviving examples of the period are found on the island of Delos, a major mercantile centre at the time. Rooms were arranged around an interior courtyard, usually a complete peristyle with elongated Doric columns. The courtyard and the floor of the principal room often featured mosaic decorations. In the Roman period many of the houses also had an atrium, in addition to the peristyle court. As the Greek and Roman cultures infiltrated each other, their domestic worlds also grew more similar.

In the cities of the late Roman empire the apartment house (*insula*) was a more common housing type than the individual dwelling (*domus*). Two *insula-type* buildings have been unearthed in Ephesus. Constructed in the 1st century AD, they underwent several remodellings until the 7th century. There were vaulted shops on the ground floor and modest rectangular rooms on the upper floor, while a two-storey mansion formed a component of one of the *insulae*. Literary sources also confirm the existence of *insulae* in Constantinople. In fact, residents of a five-storey *insula* complained when some of their neighbours kept pigs in the upper storeys. The individual dwelling (*domus*) continued to be based on the central peristyle courtyard surrounded by rooms and other service areas. These included a bath, kitchen, latrines, plumbing and heating systems, and storage rooms.

Building laws regulated the construction of new houses or the remodelling of existing ones (*Codex Justinianus*, 8. 10. 12). A distance of at least 12 Greek feet had to be maintained between houses. Repairs to old houses were allowed, provided the original plan was not altered. New buildings had to respect neighbours' access to daylight and, especially in Constantinople, view of the sea. Balconies could only be built on streets that were over 12 feet wide, and exterior staircases from the street to the balcony were not permitted, as they could obstruct traffic and pose fire hazards.

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See also **Family; Neoclassicism; Town Planning; Women**

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Fortifications

Over the centuries in the Greek world the art of fortification struggled to keep pace with methods of attack; in the long term the attacker prevailed. At times the consequent catastrophes were overwhelming, and the systems being defended collapsed, resulting in a complete regression before the process started again. Therefore no constant line of development and improvement can be traced. In addition, these aspects of warfare did not occur in isolation; external developments, new ideas brought from outside the Greek world, affected the systems employed in Greece.

The Minoan world appears to have eschewed the use of fortifications. There are no walls around the Cretan cities, implying a surprising degree of stability and peacefulness among the various communities on the island. By contrast, the mainland citadels of the Late Bronze Age were fortified, and with the passing of time these fortifications were steadily strengthened. The walls enhance the strength of places already chosen for their steep sides and difficulty of approach. Generally, they are built of massive, irregularly shaped blocks of stone that rely on their sheer weight to keep them in place and the walls intact; this may imply that attack using battering rams was anticipated, and in any case there is no doubt that the massiveness was designed to impress and so deter any would-be attacker. The systems grew up more or less fully fledged, indicating that their origin is to be sought elsewhere – without doubt the even more massive defences of the major Hittite sites, such as Boğazköy in central Anatolia. Gateways were strongly defended, projecting bastions being used to provide flanking protection to the actual gate, which, at Mycenae in particular, was given massive jambs and a lintel surmounted by the famous sculptured slab depicting heraldic lions facing a pillar.

Repaired where necessary (and invariably with less massive masonry), these walls served for centuries the communities that emerged from the collapse of late Bronze Age civilization. New fortifications were rare during the early centuries of the 1st millennium BC. The best example is the walls of Smyrna, in which a high footing of carefully fitted stone surmounted by a thick superstructure of mud brick protected the city from landward attack. This dates from the late 9th or early 8th century BC, and was renewed and replaced until the end of the 7th century BC, when it had to defend the city against an attack by Alyattes, king of Lydia, who brought with him the techniques of siegecraft developed by the Assyrians, particularly overtopping the walls by constructing against them a huge siege mound. Against this the fortifications were helpless, and the same is true a little over a century later, when the Persians used a similar mound against the Cypriot Greek city of Paphos, despite strenuous attempts by the Paphians to undermine the mound by tunnelling.

Within Greece itself this siegecraft was not developed. During the 5th century BC city walls were sufficient to keep out

attacks by other Greek forces. In particular, the heavily armoured infantry (hoplites) were too unwieldy, and the risk of losing citizen lives too great. Many cities therefore defended themselves with walls, using stone footings (generally with inner and outer faces only, and a rubble and clay fill) and a superstructure of mud brick. The only practical method of attacking such a wall was to surround it and starve the defenders into submission. This was circumvented by Athens, which linked the city walls with those of its harbour, Piraeus, by means of long walls running the full 7 km between the two places, and then using its command of the sea to import food, protecting the inhabitants from starvation.

Important developments took place in the 4th century BC. Techniques of siegecraft were improved, partly by the introduction of Near Eastern methods, partly by the increased use of specialized non-citizen troops. Siege engines began to be employed, and in consequence the fortification systems had to be strengthened. A crucial development resulted from the victory of the Boeotians over the Spartans in 371 BC. Messenia was liberated, and the Boeotian leader hurriedly created a new strongly defended city at Messene. A huge circuit of more than 6 km was completed within months, allotted section by section to a multitude of constructors. The wall is made throughout of stone, with outer faces of strong rusticated masonry and rubble fill. The most significant development is the addition of towers at regular intervals, to carry missile-throwing engines and archers who could prevent an enemy reaching the curtain wall itself. Gateways were particularly strong; a good example is the Arcadian gate, flanked by towers, an outer gateway giving access only to an inner circular forecourt in which an attacker would be surrounded before being able to reach a second inner gate. Such systems began to be found in other places. In Boeotia itself there is a smaller version at Siphae which is backed by a system of free-standing watchtowers of similar construction.

Some experimentation can be seen in the methods used to build the walls. With the likelihood of direct assault on the fabric of the walls, it was found that a rubble fill might contribute to total collapse if the outer face was dislodged. Different fills, such as packed mud brick, and dividing the interior of the wall into compartments by using through stones binding the inner and outer faces together at intervals, were tried. At the same time, siege engines improved. Philip of Macedon and, especially, Alexander the Great had formidable arsenals of such weapons. Alexander's engines were thwarted only by the walls of Phoenician Tyre, of extra large blocks and gypsum mortar, until he found a weak spot that he could attack by sea. By the end of the 4th century BC systems were extremely sophisticated, but even the walls of Rhodes, strengthened by internal arcaded buttressing, were breached by the elaborate siege engines of Demetrius, and only a desperate defence saved the city. Demetrius' siege engines included a massive mobile tower called the Helepolis, the Taker of Cities, which earned him the nickname of the Besieger; Rhodes was his only failure.

Thus the final phase of Hellenistic Greek fortification had to be designed to keep the siege engines at bay; once they reached the wall, it was virtually doomed to collapse. This was done by providing taller towers that held whole batteries of counter-siege engines, enfilading the wall as well as firing outwards, and by constructing outer systems (*proteichismata*) of secondary walls with deep ditches in front to prevent the heavy and cumbersome engines of the attacker getting close enough to the walls. Parts of the *proteichisma* of Athens, recently excavated, have in front a sheer-sided ditch 6 m in depth. The strongest and most elaborate of these systems was built late in the 3rd century BC at Syracuse in Sicily, designed by the great scientist Archimedes, but even this failed, after a bloody siege by the Romans.

Despite this, most Hellenistic cities were surrounded by fortification systems so extensive that many of them are well preserved. There are excellent examples at the Greek or Hellenized cities of Asia Minor. Heracleia by Mount Latmos, close to Miletus, is a good example. Miletus itself must have had similar walls, and one of the largest circuits is that at Ephesus. Both Heracleia (a small city) and Ephesus have walls that, like those a century or so earlier at Messene, include a much vaster area than needed for developed habitation, either anticipating expansion or, more likely, leaving room to receive people evacuated from the surrounding countryside in time of war. The walls of Ephesus certainly, and probably also Heracleia, were built for the Successor king Lysimachus, who took over the region after the battle of Ipsus in 301 BC. The walls are of good ashlar, built on the compartment system. Where they run up hillsides, the rock is carefully trimmed in steps to receive the blocks, lowers are generally square, but there are some circular ones, including at Ephesus a massive tower towards the seaward end of the wall. Such walls serve a variety of functions, even if it must have been accepted that they were bound to succumb to a protracted siege vigorously maintained. They certainly gave routine security against brigandage and small-scale attack, but, most important, they gave their possesors a sense of pride. At some places, such as Perge in Pamphylia, one gets the feeling that the walls, and especially the main gate, were intended as much to look impressive as to be militarily effective.

With the development of Roman authority, military needs changed. The Romans learned their siegecraft from the Hellenistic Greek specialists. The engineers who developed the siege engines worked in a Hellenistic context. Vitruvius, who was Julius Caesar's engineer, certainly knew the engines invented and described in treatises by his Hellenistic predecessors, to whom he refers in his own *De Architecture*. Methods of fortification were vastly improved by the development of concrete construction techniques, which at last made the fill so permanent and durable that any outer facing employed was for decorative purposes only. Moreover, the extension of the empire and the creation of the Pax Romana removed the need for fortifications from the cities of the Greek world. Where walls were retained they were obviously for secondary purposes only, local security, and local pride. The real defence was on the frontiers of the empire.

The incursion of invading peoples into the Aegean area in the 3rd century AD brought a sudden reversal of this situation. Many places were to all intents and purposes undefended. Athens was attacked and sacked by the Heruli in AD 267. A new system of defence was necessary. This had to take account of the fact that a Greek city like Athens no longer had a significant army of its own, or Roman troops to help. It would have to rely on its own limited resources, and this meant that it could no longer hope to defend a circuit as long as that which had surrounded the Classical city, and which,

though ruined, survived in part. A new circuit was therefore created, considerably reducing the length of wall and the area defended. This can be seen most clearly in the Agora, most of which was now outside the wall – generally referred to as the "Valerian" wall, after the contemporary emperor at Rome – but this in no way implies that it was an official imperial creation. The wall itself is plainly makeshift. It was made from reused elements of demolished Classical buildings, forming a line of solid but unmortared masonry. At sections, it includes actual buildings; the stoa of Attalus, at the eastern edge of the Agora, survived relatively well preserved because its main structure was incorporated into the new defences. The Agora itself was razed almost completely, not by the Heruli but to create an open zone devoid of cover for an enemy in front of the wall. Beyond this area, the temple of Hephaestus remained intact. The wall ran up to the entrance of the Acropolis. No attempt was made to refortify the Classical Propylaea; instead, a new gate with a small opening and flanking bastions was created, again from reused material, a little below. Everything looks makeshift. It is not constructed according to the latest systems of military works, and, except in so far as it reuses material, it is not a revival of older Classical systems. The city soon redeveloped to include areas outside this wall, but sections of it, particularly on the Acropolis, remained to be incorporated into later medieval fortifications.

Athens in the 3rd century AD is an example of what a Greek city was able to achieve relying entirely on its own resources. Constantine's city of New Rome, Constantinople, represents the opposite extreme, fortified with the full resources of the imperial authorities. The main landward wall, the Theodosian, was laid out in the early part of the 5th century AD. It was built largely of mortared stonework, with regular stringcourses of brick, in the manner that had evolved for Roman concrete construction at the time of the early empire; the obvious comparison is the walls built in the 3rd century AD by Aurelian at Rome. It incorporates larger blocks of stone, for decorative effect rather then necessity, and where a special effect was felt appropriate, there are elements completely faced in good squared masonry; this was particularly so at the Porta Aurea, the great Golden Gate. Such masonry here was a direct revival of the appearance, at least, of the Classical and Hellenistic walls. The wall itself had a regular series of tall towers, placed at intervals of 50 or 60 m. Most were square, some were octagonal, mostly occasionally but near the Golden Gate alternating with the square examples. In front of the wall was a *proteichisma*, lower, but like the main wall, battlemented. It also had towers, but these were not much higher than the wall itself. In front of this was a deep ditch, vertical sided, the sides being supported where necessary by masonry. This was a strong system. Maintained, but not essentially altered in character, it survived as the main defences of the city, and sufficed for resistance to all attacks, perhaps the longest survival of a defensive system, until the Turks set about it with cannon and gunpowder in 1453. Yet, apart from the use of mortar in its construction, it was little modified from the Hellenistic walls of the 3rd and 2nd centuries BC. All the elements in its layout are found in the walls of Hellenistic Athens, and, particularly, in Archimedes' great defences at Syracuse. It is an important example of a continuing military tradition.

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See also **Siegecraft; Technology; Warfare**

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Military, and Masonry Developments

Military architecture from the ancient world survives in the form of city walls and citadels, and linear walls with towers. The main features of ancient fortification can best be seen in Greek wall building.

City fortification is probably as old as the formation of the city itself. Herodotus tells us that the seven walls of Ecbatana, built in the 9th century BC, were concentric, and towers can be seen on Assyrian reliefs depicting military sieges. A well-preserved early example of city walling is at the Hittite capital of Hattusas, Boğazköy in Asia Minor. It has an earth glacis or berm lined with stone at the base of the wall. On the top was either wooden palisading or mud-brick walling. The warring Greek city states improved on these examples, adding their own innovations.

The Lion Gate at Hattusas has a straight principal entry, like the Lion Gate at Mycenae, and both these gates were strengthened spiritually by the presence of the religious sculptural decoration. The idea of a spiritual aid to defence continues into the Byzantine period, when gates were dedicated to Christ or the Mother of God or to a saint. The gates or guardian towers often had a chapel incorporated in them, usually on the first floor.

The Lion Gate at Mycenae testifies to the importance attached to the defence of city gates. It was placed at an angle in the walls so that attackers approaching the gate on the road beneath were subject to flanking fire before they actually reached it and, in addition, it has a defensive bastion on the opposite side to the city wall. The obvious importance of the gate to any fortification is echoed by literary tradition which describes how each of the seven leaders in the Theban war was in command of the attack on one of the seven gates of the city, and that six of them were killed. At Troy a legend has it that Achilles was wounded by an arrow in the heel while attacking the Scaean Gate, which suggests defensive fire from a flanking bastion. By the 4th century BC the more developed form of a gate flanked by two defending towers can be seen at Messene. This type became the standard defence to the principal gate of many cities in the Greek, Roman, and Byzantine periods, since such towers offset the weakness of the gate itself. At the same time they provided protection for an orderly sortie of counter-attacking cavalry or infantry. In times of peace, such a gate was also used for important fêtes and processional purposes. Two other forms of gateway appear in Greece from the 5th century onwards. The bent gate forces an enemy to turn a corner between heavily defended walls before he reaches the gate. A development of the bent gate in Byzantine and crusader times provided for a second or even a third bend inside the

principal gate so that, if the besiegers broke it down, they still lacked clear access to the town or citadel that they were attacking. The postern gate served the defenders as a secretive means of communication with the outside world and as a means for covert counter-attack. A postern gate appears at Hattusas, Boğazköy, and was not an invention of the Greeks, but it became a regular element in Greek, Roman, Byzantine, and Frankish fortification.

Walls and towers antedate ancient Greece, but from the Bronze Age onwards the Greeks made great developments in wall construction. Early Cyclopean masonry can be seen at Tiryns and Mycenae. It is typified by the use of huge blocks of irregular masonry shored up by smaller stones and backed by earth and rubble. From the 5th century BC onwards there was a rapid development of masonry types. For their strength these mainly rely on the masonry surfaces of the wall, which were backed up by a core of earth and rubble and could absorb the shock of a missile or the impact of a ram. The surface blocks were made of regular ashlars fitted closely together. The setting pattern for these blocks developed in the Classical period. Instead of regular blocks laid in horizontal courses with the long side outwards, a pattern of headers and stretchers was developed that greatly strengthened the wall. The headers went deep into the earth and rubble core and gave much greater stability. This type of walling, known as casemate walling, probably derives from timber bonding, which was used in mud and masonry walls from the time of the Old Testament onwards (1 Kings 6: 36). A second development was the use of embossed masonry, which can be seen in the 4th-century BC fortifications of Aegosthena and Messene. Whereas ashlar blocks had a smooth surface, the embossed block had smooth margins at the edges while the rest of the surface was rough hewn and irregular. It was designed to dull or deflect the impact of missiles. Its efficacy is reflected in its long history that ends only with the decorative use of it as rusticated masonry in the Baroque period in western Europe.

The early historical development of masonry that makes use of lime mortar as opposed to earth has yet to be charted. It is of vital importance not only to military building but to all architecture since lime mortar transformed the wall into a single strong structural component; earlier, it had consisted of the two elements of fitted surface blocks with an interior core of earth and rubble filler. Vitruvius names an early type of lime mortared walling – *opus incertum*. He remarks that this walling is much stronger than *opus reticulatum* and attributes it to the Greeks, and says that it is not to be made light of. Philo of Byzantium, writing in the 2nd century BC, refers to mortars and to the use of *gypsos*, which may be gypsum rather than lime. However that may be, his lack of emphasis on the use of lime suggests that he did not fully understand its potential. It was the Roman military engineers and builders who made the greatest advances in the use of lime mortars and lime concrete, and their technical advances were in turn made use of by the Greeks in the Byzantine period. The massive Slav invasions of Greece from the 5th century onwards and the Persian invasions of Asia Minor in the 5th and 6th centuries AD followed by the Arab invasions in the 7th to 9th centuries, saw the transformation, and often the virtual destruction, of the great Greek and Roman cities of the plains. There was a need for rapidly built and efficient defensive walling, and the type of masonry favoured by Byzantine military engineers was the Vitruvian *opus incertum* or mortared rubble wall, with a bonding system of either brick or timber. This could be constructed under the supervision of a military engineer with the use of unskilled labour, most probably the soldiers themselves with the help of forced levies of the local population to bring in stones. It did not require a large force of skilled masons to perform the slow task of shaping ashlars for the smooth surface of a wall. Nor did it require stone suitable for cutting and shaping, since any shape or size of stone could be firmly bedded into the wall mortar with its smoothest face to the outer surface. The outer surface of the wall was protected from water penetration by a shelter coat of lime plaster. In the Byzantine period from the 6th to the 15th century there are numerous examples of *opus incertum* military walling scattered throughout Greece, the Balkans, and Asia Minor. Unlike ashlar walling, *opus incertum* does not look elegant or impressive, and it is difficult to date unless it incorporates inscriptions, brick bonding courses, or decorative features. It has not attracted much attention from Classical scholars because it is not aesthetically pleasing, but its legacy was of fundamental importance not only in military architecture but in all workaday building in the medieval and modern world until Portland cement replaced lime mortar.

The two main categories of military architecture lie in the defence of cities and the defence of frontiers. In the siting and defence of cities the Greeks carried on an ancient tradition of using naturally defended sites: either around a hilltop as at Mycenae, or in the case of ports by using natural ravines. Such natural defences could be improved by rock clearance or ditching. The Greeks concentrated on the development of hilltop citadels such as Aegosthena or Acrocorinth to serve as a final stronghold if the walls of the city were to fall. A Greek city in the plains such as Mantinea was an exception that only became the rule after the Roman conquest; it was not until the 3rd century AD, with the Gothic invasions, that there was an enemy of consequence. In the Byzantine period cities often reverted to Hellenistic hilltop sites and it is not uncommon to find a city with the original Greek ashlar masonry at the base of the wall and Byzantine mortared rubble masonry in the higher courses.

Linear fortifications were used at Athens to link the city with its port and at Acrocorinth to link city and citadel, but they were more suited to frontiers or to the creation of walled mountain refuges that sheltered the whole population of an area with its livestock. Thus the walls of Messene enclose not just a city but a whole landscape. During the Peloponnesian War a defensive wall across the base of the peninsula was planned. Another example is the Byzantine long wall of Thrace.

In both city walls and linear fortifications towers were a regular feature. But once again it was the Greeks of the ancient world who seem to have made the most significant developments in the construction of towers. Early towers seem to have been an integral part of wall construction. They were conceived as vantage points, higher than the adjoining wall, and by projecting a little they acted as buttresses from which flanking fire could be directed upon the attackers. By 304 BC towers that were structurally independent of the walls had been developed. At Rhodes Demetrius Poliorcetes destroyed the curtain wall to either side of a tower, but he was unable to take the tower itself. The text of Philo of Byzantium on the subject of towers is ambiguous, but he does appear to suggest that some towers

were structurally independent of the walls, and that they were heightened by the addition of a smaller turret on the top level. The archaeological evidence for the upper work of towers is lacking since none survives intact, but in the 6th century AD Procopius describes independent tower keeps that were forerunners of the medieval keep. No Byzantine examples survive, but their existence is suggested by 16th-century Ottoman examples, such as the White Tower at Thessalonica, and the three great towers of Rumeli Hisar outside Constantinople. In the individual forms of towers and in the traces of walls the ancient Greeks were also innovators. They built towers that were rectangular, round, and U-shaped. Philo of Byzantium seems to recommend the pentagonal, prow-shaped tower. Its pointed shape served well to deflect missiles, and it was a favourite choice in Byzantine fortifications. A version even survived to form a part of artillery fortifications from the 16th century onwards. Philo of Byzantium also describes a wall traced on the pattern of saw teeth. A good example is the 9th-century walls of the Byzantine city of Ankara.

The surviving evidence of military architecture thus shows that the ancient Greeks and the Byzantines were important developers in this field, and sometimes skilled innovators.

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See also **Siegecraft; Technology**

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Palaces

If palaces are defined as buildings that served as a residence and place for fulfilling the administrative duties of a ruler, it is obvious that they will not form a significant element in the architecture of Classical Greece, since at that time monarchy was not a normal political system. At other periods, before and after, the picture is different. The prehistoric societies of Greece, in their developed forms, depended on a complex, centralized administration which, presumably, was under the supreme control of individuals, though, apart from the palaces themselves, the only evidence for this is in later legend, with all the dangers of distortion that implies. There are two main types of palace found in the Bronze Age communities of Greece, the Cretan (Minoan, in the archaeological terminology invented by Sir Arthur Evans, who excavated the greatest of them, at Knossos) and the mainland (Mycenaean). Since we have no written record of how these presumably monarchical states functioned, other than references to authority in the Linear B tablets, interpretation of their palace architecture has to be based on the buildings themselves.

The palace at Knossos comprises areas that can be assigned with some certainty to residential purposes and others that functioned as storerooms, workshops, record office, and thus administrative functions; and others, less easily understood, that were probably designed to accommodate some, at least, of the religious functions of a monarch. The structure developed over a protracted period of time, punctuated by natural disruptions, particularly earthquake, before final destruction some time in the 14th century BC. The placing of the various elements round a central courtyard (a regular feature of the Minoan palaces) gives a superficial appearance of unity; in fact, it is clear from the archaeological evidence that the palace was rather the result of piecemeal development. There is no simple unity to the plan: the different sections have their own organization, and, generally, their own separate routes of access, a feature that is normal in Minoan architecture. The residential areas are on the eastern side of the courtyard. They presented two storeys to the court, though there were also basements taking advantage of the slope down from the courtyard and overlooking a river valley. Grand, wide staircases surrounding a light well led up and down. The individual rooms are spacious and well decorated. (Evans's attempt to assign occupiers to some of them, such as the "Queen's Megaron", are entirely fanciful.) A distinctive feature is the division of a room from a shaft by means of a set of folding doors set between piers. This must have been designed to control and modify the ventilation, to allow free circulation of air during the hot summers, to restrict it in the cooler winters. The religious function seems to have been served by at least one room on the opposite, western side of the court, one of the oldest parts of the palace: a lavishly decorated room, containing a solitary stone "throne", and with basins stink in the floor, for water and possibly some purification ritual. The courtyard itself, it is suggested, may have been the location for the bull-jumping ritual depicted in Minoan art. The storage and workshop areas comprise long passages, with magazines and other rooms leading off. They are much vaster than would be required to meet the consumption of the residents in the palace: the materials stored and produced would be intended for trade, in a system of economy that would be managed and controlled by the centralized palace authority.

The Mycenaean palaces developed later, after the apparent collapse of Minoan Crete, and were obviously influenced by their Minoan predecessors, whose centralized political and economic systems they probably imitated. There is, however, a significant architectural difference. The central clement is a rectangular hall building, divided into an open porch, with two columns, and a square room, sometimes separated from the porch by an antechamber. This was the formal area of the palace. It contained a large central hearth, too big and too magnificent to be merely for heating, and which presumably had some ritual significance. The room may have functioned as an audience chamber, or perhaps the place where the monarch consulted some form of council. It is generally assumed that it corresponds to the room where the kings of the Homeric poems

carried out such functions, and the term given to it by Homer, the megaron, is normally applied to its Mycenaean predecessor. In addition, there were often subordinate rooms of similar plan, and, as on Crete, archive and storerooms for a similarly centralized administrative and economic system.

After the collapse of these complex systems, the divided Greek communities may still have been ruled by individuals; a monarchical system, dualized, survived at Sparta throughout its independence, and there were kings even in the Classical period in more backward areas, such as Epirus and Macedon. The houses of these kings may have been somewhat bigger than ordinary dwellings, or placed in particularly prominent locations – a good example is that at Emporio on Chios – but they were of no architectural pretensions, and it would be misleading to call them palaces. Under the non-monarchical regimes of the classical cities, such buildings would only exist under tyrant administrations, but there is no archaeological evidence for the form these took (the palace at Vouni in Cyprus of the 5th-century BC seems to be non-Greek in origin).

Palace architecture becomes important again with the rise of Macedon. Traditionally the Macedonian kings resided at Aegae, but the palace found there in the 19th century dates only from the end of the 4th century BC. Before then, at the end of the 5th century BC, king Archelaus transferred his administrative centre to Pella and built a palace there. This remained the palace of Philip II, and it was there that Alexander the Great was born. It was situated at the top of an acropolis hill, overlooking the city. It is currently being excavated by the Greek Archaeological Service, but it had been very thoroughly destroyed at the end of Macedonian independence and little more than its foundations survive. Its principal feature is that it incorporates five distinct courtyards, not all built at the same time, and certainly separating official from residential areas. The residential section probably dates back to the 4th century BC. We know that important artists, such as the painter Apelles, were recruited by Archelaus to decorate and embellish it, but, inevitably, nothing of this survives.

The palace at Aegae, probably built by the successor king Cassander, who wanted to revert to the older Macedonian tradition, is better preserved. It consists of two parts, a smaller courtyard structure at the back, added at a later date, and a large formal courtyard in front, overlooking the plain of the Haliacmon river. This measures 44.50 m square, and was surrounded by Doric columns, 16 on each side and made of local limestone. The entrance is at the centre of the east side, into which it is incorporated. It is marked by two marble piers, each fronted with engaged Ionic half columns, and gives a degree of formality and axiality that is not found in ordinary Greek houses. To the left of the entrance, and entered from the court, is a circular room containing a throne, probably religious in function, dedicated to Heracles Patroos. As far as can be seen from the remains (not all are well preserved), the other rooms that surround the court were all designed for formal feasting. Those on the south side were particularly splendid, two being entered from a vestibule with marble half columns recalling those of the porch. Their floors had magnificent mosaic decoration. Those on the west had space on the surrounding plinths for 30 dining couches. Despite their dimensions, 16.74 by 17.66 m, they were roofed and tiled, with the largest unsupported spans known in Greek architecture, an indication of the superior quality of Macedonian timberwork. The graduation of size and splendour (the floors of the largest rooms were paved with broken fragments of marble only) suggests the hierarchy of the Macedonian court. The whole concept, which was probably anticipated at Pella, was influenced by the Macedonian tradition of erecting large (100-couch) temporary dining pavilions or tents in sanctuaries for particular religious occasions. Such a pavilion was taken by Alexander on his campaign of conquest.

These Macedonian palaces must have influenced the palaces of the successor kings who established themselves in the different fragments of Alexander's empire, though little archaeological evidence survives for them. At the same time the Persian royal tradition was also influential. At Pergamum, which became the capital of an independent kingdom in the second half of the 3rd century BC, there survives on the top of the hill on which the city was built a group of houses that would have served the royal family. They have good-quality mosaic floors, but apart from their select position have nothing special about them to distinguish them from the better-quality Hellenistic houses.

More important was the palace of the Ptolemies at Alexandria. There are no surviving archaeological traces of this, though evidence for its position has been confirmed by recent underwater research in the adjoining harbour area. Literary evidence gives us some idea of its arrangement and what it comprised. The city had been founded by Alexander as a place in which he could gather the existing Greek settlers in Egypt. He may have intended a palace, though whether he would have regarded it in any sense as his capital in Egypt is unclear. Rather, the palace was developed by his successor Ptolemy I Soter (305–282 BC) and his descendants. An area by the sea and in the northeast part of the city was designated as the royal area (Basileia). It had two main parts. The outer, which was accessible to the public, contained sanctuaries and buildings such as the Museum with its great library, and the theatre. It seems to have been an open space of parkland – it included a zoo – within the city, with the buildings spread out. There was still room in the 1st century BC for Cleopatra to build a shrine-sanctuary dedicated to her lover, Julius Caesar. The inner area, on the promontory Lochias that formed the eastern side of the Grand Harbour, was occupied by the private quarters of the royal family, Even here there seems to have been open space, and the building of which we have the fullest description was a typical Macedonian dining pavilion with 100 couches, lavishly decorated and carpeted. It was built by Ptolemy II Philadelphia (282–246 BC); we have no idea if it was anything more than a temporary structure, though the description we have, by the late author Athenaeus (*fl.* AD 200), derives from the near-contemporary Callixinus, and refers to a structure then long since disappeared.

Much more remote, and part of a very different tradition, was the palace at a Greek settlement known only by its modern name of Ai Khanum in Afghanistan. Here a large area to the west of the main road through the city was devoted to the palace. It dates from the foundation of the place in the early 3rd century BC, with a final phase of about 150 BC. It was vast, covering an area of 87,500 sq m. It was entered by way of a monumental propylaea building, and then a second propylon after the road turned through 90 degrees. This led to a large

courtyard surrounded with Corinthian columns, at the back of which was an oriental-type open audience hall, with a wide room behind. Behind all this was the residential area. There are distinct Mesopotamian elements in this, though it undoubtedly belonged to a Greek ruler.

The word ''palace'' is itself derived from the name of the Palatine Hill in Rome, where the emperors lived. At first their residences were almost entirely in the non-Hellenic tradition of the Roman atrium house. The intention was to play down the concept of monarchy, now equated with the Hellenistic rulers, but as the imperial system came more and more to incorporate elements of the Hellenistic monarchies over whose territories it now ruled, aspects of Hellenistic palace architecture were adopted by the Romans, for example in Nero's Golden House and Domitian's palace on the Palatine.

As a result, later palaces in the Greek area echo rather the Roman type; this can be seen in the palace of Galerius at Thessalonica with its adjacent hippodrome. The same is true of the Great Palace at Constantinople, though this has suffered badly in successive destruction and rebuilding. As with the earlier imperial palaces it comprised an official, administrative area to the east, and a residential one to the west. The entrance to the official section was at the gate called Chalke, south of Hagia Sophia. Within were audience chambers, quarters for the imperial bodyguard, a church, and a 19-couch dining hall. Terraces faced southeast, overlooking the sea, while to the northwest was the Hippodrome, corresponding in its relationship to the palace with the Circus Maximus in Rome. Little of all this remains visible, though the monuments decorating the central line of the racecourse, including the serpent column taken from Delphi, survive. Written descriptions of the sumptuous decoration within give a general idea of its magnificence; excavation has revealed mosaic floors of the highest quality.

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See also **Minoans; Mycenaeans**

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Public Works

While domestic architecture provides shelter to individuals and families, public architecture exists primarily for the benefit of the health, safety, and wellbeing of the larger community. Public architecture caters, among other things, for the provision of water, removal of waste, facilities for personal hygiene, street paving and other civic utilities, and defensive works. Public architecture, in the form of harbours and lighthouses, roads and bridges, markets, and, more recently, railways and telecommunication systems, also facilitates and encourages commerce and other exchange. Finally, public works, such as poorhouses and hospitals, schools and orphanages, police headquarters and prisons, are associated with social welfare and public order. Depending on the historical period and on the particular administration, responsibility for the undertaking and maintenance of these projects rested variously on private individuals, the city state, the Church, the local or central administration, and national or international commercial concerns. A review of representative public works provides an insight into the daily life of an average citizen, with its attendant inconveniences and occasional luxuries, and reveals the major preoccupations and priorities of various administrations.

In the cities of Classical, 5th-century BC Greece civic buildings and public works were commissioned and financed by the citizens themselves. They included roads and fortifications, temples and theatres, stoas and gymnasia, water fountains and reservoirs. In the pre-Classical period these were financed by kings and tyrants, while in the subsequent Hellenistic and Roman eras they were often commissioned by wealthy donors and, in some cases, by the emperors themselves. Provision of water and removal of waste formed the core of most public works projects.

Although there were elaborate bathing facilities in the palaces of Crete and Mycenae, and simples ceramic bathtubs (similar in shape to our own) in Olynthus, most people in antiquity bathed in public baths. These had separate spaces for men and women and were often located at the entrance of cities for the convenience of travellers. Public baths gained widespread popularity in Roman times, becoming large and impressive social spaces that were adorned with marble, mosaics, and statues. Public latrines, built also by the city states, similarly provided for the needs of both travellers and residents, since most houses did not have private latrines. In the Roman Agora of Athens an elegant public latrine building accommodated up to 64 customers in a generous, roughly square room. Lavatory seats, cared out of marble, were arranged around the walls. Running water continuously flushed the latrines, while an opening in the centre of the roof allowed for ventilation.

Drinking water for people and animals was supplied by wells, fountains, aqueducts, and reservoirs. In the 6th century BC the tyrant Pisistratus erected the Enneakrounos (nine-spouted) fountain in the Agora of Athens on the site of the simple spring called Kallirrhoe (fair-flowing). It became famous both for its architectural elegance and for its cool water, which was used in wedding ceremonies for the bathing of the bride. Several other fountains and wells in the Agora and the rest of the city provided water for residents and travellers, their animals and plants. In the Agora of Athens alone 400 wells were opened up throughout a 1000-year period, as indicated by pottery shards found in excavations. In Athens the supervisors of the fountains – *epimeletes krenon*, as Aristotle called them – were elected by the citizens to serve four-year terms, while less important municipal posts were assigned by lot. Care and maintenance of the water supply have always remained an upmost priority for

each administration, as it directly affects the life and health of the whole population.

In the islands and other places with little rainfall, residents built private cisterns in their courtyards and occasionally public ones, like the large cistern on the island of Delos (measuring 15.5×6.3 m) that gathered rainwater falling in the theatre. A famous water reservoir, built in the island of Samos during the rule of tyrant Polycrates in the 6th century BC, remained in use for 1000 years. According to Herodotus, it was the work of the architect Eupalinus from Megara.

The swelling population of cities and the widespread institution of public baths increased the demand for additional water. New aqueducts transported water from the nearby mountains to central reservoirs in the cities. From there, a network of clay pipes directed the water to baths and fountains. The most elaborate fountains, called nymphaia, were monumental in size and shape, embellished with the statue of the emperor or donor and with numerous sculptures of water nymphs, satyrs, and river gods. Among the most celebrated fountain buildings in the Greek world were the nymphaeum of Herodes Atticus in Olympia and the three-storey nymphaeum of Miletus, both dating from the 2nd century AD. The Roman emperor Hadrian, who embellished Athens with several new structures, also addressed its water supply. He built an aqueduct system that collected water from the nearby mountains of Parnes and Penteli and brought it to a great reservoir in Athens, on the southeast slope of Lycabettus. The reservoir, which can still be seen today, was cleaned up and used again in 1857 and in 1925–26. Waste water along with the rainwater of the Athenian Agora was collected in a closed conduit that led to the Eridanos river. The sewer, which survives almost intact, is still in use today.

In Archaic and Classical cities roads were usually narrow and meandering. One of the most famous roads of antiquity was the Sacred Way that started from the Sacred Gate of Athens and ended 20 km away at the temple of Demeter in Eleusis. The road was 5 m wide, defined on either side by two courses of rough stones and paved with small stones and packed earth. The road was punctuated by stone markers denoting the distance from Athens. Unlike their predecessors, Hellenistic cities were laid out with generous and regular streets. Alexandria, in Egypt, featured an orthogonal street pattern with seven parallel avenues, the central one of which was 31 m wide, Each avenue was bisected by a tree-planted island 1 m wide. ne side was paved and intended for people on horses, while the other side was covered with packed earth and pebbles for carriages and chariots.

The construction of harbours was also an important undertaking in ancient Greece, since most of the commercial and military activities relied on sea routes. Harbour entrances were usually wide enough for only one ship to pass through and could be closed with a chain in case of danger. Dock buildings (*neosoikoi*) housed the boats during the winter, while the boats' movable parts – sails, anchors, ropes, chains, etc. – were stored in separate buildings called tool chests (*skeuothekai*). *Neosoikoi* could be found in the Piraeus, Sunium, and other towns by the sea, while the most famous *skeuotheke*, that of Philon in Piraeus, took its name from the architect who designed it.

The Pharos of Alexandria, one of the seven wonders of the ancient world, was the most famous lighthouse in antiquity. It was built on a little island called Pharos for Ptolemy II of Egypt *c.*280 BC. It is said to have been more than 110 m high, with a light that could be seen from a distance of about 300 stadia (about 55 km) at night, while its smoke could be seen from even further away in the daytime. A broad spiral interior ramp allowed the mules to carry wood for the fire that burned at the top. The outside of the lighthouse was made of white stone and decorated with marble and bronze designs. An inscription recorded the name of the architect, who was also known for other works he completed: ''Sostratos, the son of Dexiphanos, dedicates this to the gods, saviours of those who travel.'' Continuously repaired, the Pharos was still standing in the 12th century.

Defensive walls were often one of the most costly public works of a town. They usually enclosed all of a city's area and were expanded as a city grew. Athens, for instance, built first the Mycenaean walls (1240–1220 BC) and the Pelasgic walls, followed by the Themistoclean (479/78 BC) and the post-Herulian walls of the 3rd century AD. Ruined parts of earlier buildings including stones, unbaked bricks, and tiles were commonly incorporated into the walls, which were often built in haste. In case of danger, they provided refuge not only for a town's residents, but also for the inhabitants of the surrounding countryside.

The extensive public works established by the Romans continued to be used and maintained by the Byzantine emperors and administrators. Constantinople drew its main water supply from about 15 km northwest of the city, through an aqueduct built by Hadrian and later restored by Valens. The masonry arches which carried it a distance of 970 m still stand today. A new network of aqueducts was constructed in the late 4th century to accommodate the needs of the growing population. Additional water was supplied by large cisterns, which became the main source of water after the aqueducts fell into disuse around the 7th century. Cisterns supplied water to public baths, monasteries, and churches. The city of Constantinople, whose daily water consumption was about 10,000 cubic m, had a number of open cisterns, with approximate capacity of 900,000 cubic m, and more than 80 covered cisterns, with a capacity of 160,000 cu m. Most houses in the cities and the countryside had no plumbing. Even three-storey houses in Constantinople were often built without sewer drains. Residents obtained water from cisterns and wells and used latrines located outside the main buildings. The large public Roman latrines remained in use until about the 7th century, but apparently not beyond. Building codes regulated the construction of new latrines and other plumbing installations, such as gutters, sewers, and water pipes.

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See also **Harbours; Theatres**

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Religious

In the prehistoric period the practices of religion were partly associated with the palaces, in which rooms or areas were set aside for cult purposes. In addition, there were shrines at localities that had some particular religious significance; on mountain peaks, for instance, in Minoan Crete, or in caves. There is an obvious shrine building below the citadel at Mycenae, but its religious character is attested by its contents – terracotta cult figures and frescos – rather than the architecture, which is nondescript.

Classical religious architecture begins with the revival of the Greek world following the collapse of the Bronze Age communities and its aftermath. There is undoubtedly some continuity of religious belief, though the movements of peoples may bring different cults with them, and there may have been some association of religious practice or beliefs with the ruins of abandoned structures surviving the collapse, but by and large religion was at first devoid of monumental structures, and cults might well be performed at nothing more than an open-air altar. Yet the gods were identified as persons, and inevitably could be represented, whether or not realistically, by images. References in late literary sources (especially Pausanias) to wooden cult images of great antiquity, similar to the one that survived at Athens, suggest that these were frequent, and needed to be protected from the weather. There are a number of early, simple, square buildings at Kommos, in Crete, of the early 1st millennium BC, which probably housed such images.

From these simple origins there developed a regular system for the architectural requirements of Greek religion. The central act was the sacrifice, performed at an altar. Some altars were non-architectural (the altar of Zeus at Olympia was no more than a pile of ash), but normally they were built of stone, rectangular in shape, and decorated with the conventional architectural mouldings or other features (triglyph and metope systems, for example, in districts associated with Corinth). In the most elaborate examples, generally Hellenistic, the actual altar of sacrifice might be included in an elaborate architectural frame, as at the temple of Athena at Priene, or, most famously, the great altar of Zeus at Pergamum. The general rule, however, was simplicity.

The sacrifices would be attended, not only by human worshippers, but by the god, in the form of the cult image, and the greatest scope for architectural embellishment was the provision of housing for the image. This is the temple, which is literally the home of the god. Its basic form is the rectangular box, a room for the image, with a porch in front. In the simplest sanctuaries, even the porch may be lacking, but very often the temple was elaborated far beyond this. The starting point was the house as a hut. Very early temples, such as that of Apollo at Eretria, were little, if at all, distinguishable from contemporary hut houses. From this point, architectural development diverges. Houses become more complex in plan, with a multiplicity of rooms arranged round a courtyard. Temples retain the simple hut plan, but embellish it, particularly externally. The original forms use simple materials, timber, wattle, mud brick, thatch, and the only durable clement is often a rough footing of field stones. During the 7th century BC the development of quarrying and stone-carving techniques led to the construction of temples built of local stone, generally a form of limestone. The decorative systems become more elaborate, with recognized standard regional forms, of the column, of the entablature the columns supported, and the embellishment of the roof. These constitute the "orders" of Greek architecture, Doric in the mainland and, generally, the west, Ionic in the islands of the Aegean and the east Greek areas. Marble is used where it is locally available (the Cyclades), while the temple of Artemis at Ephesus, supported by king Croesus of Lydia, took advantage of neighbouring quarries of marble to become the first colossal building in that material. Size was a matter of prestige and cost. Temples might increase the dimensions of their basic room, the cella, but this required internal supports (the temple of Artemis at Ephesus was unroofed). Size could also be made more impressive by the addition of external colonnades. The platforms on which these stood were stepped, but as size increased it is noticeable that often, particularly with Doric temples, it was essentially a matter of scaling up the smaller buildings: where these took three steps of reasonable dimensions to give access to the platform, the larger temples retained three steps as a convention, even though as a result they became too large to be of practical use, and special provision for access, a ramp or additional steps, would be needed at the front of the building. The 7th century BC was one of great innovation, but thereafter the forms of temple architecture were essentially static, development being restricted merely to the refinement of detail. Thus in basic appearance there is no real difference between the limestone temple of Artemis at Corcyra (Corfu), of the early 6th century BC, and the Parthenon at Athens, built between 447 and 436 BC. Both have eight-column Doric façades. The difference lies in the proportions of the columns and the Doric order in general, the proportions of the whole building, the refinement of its lines, and the quality and style of the carved decoration applied, as well as the difference of material that makes all this possible. Similarly, there would have been little significant difference between the temple of Artemis at Ephesus of the 6th century BC and its successor, built on the same foundations after the earlier building was destroyed by fire in 356 BC.

There are relatively few colossal buildings. The average important temple seems to have been about 30 m in length and less than 15 m in width. Within this width, the cella would be reduced to around 6 m wide, giving a reasonable room for the cult statue and the deposition of sacred objects, utensils, and valuable offerings, allowing individuals to admire the interior, but certainly not affording room for anything resembling a congregation. The worshippers gathered outside, and were not accommodated in buildings. Thus it was possible for many temples – probably the majority – to be much smaller, and certainly far less elaborate. The conventional view of a Greek temple as a peripteral building, that is, surrounded on its exterior with a colonnade, is misleading.

Other buildings in sanctuaries were ancillary, aimed at providing shelter for a variety of purposes. The most frequent takes the concept of the colonnade, with the orders invented for

the temples, and applies them as façades for long, open-roofed porticoes, or stoas. They might provide shelter for worshippers, or for objects deposited in the sanctuary that could not go into the temple. They were useful for defining lines, and so, often, the boundaries of the sanctuary. They would not be so solidly built as temples, and thus are not so durable. Other buildings were more specialized. The core of the cult practices in most sanctuaries was the ritual consumption of the sacrificial victims, the meat being roasted and shared among the worshippers. Mostly it would be consumed alfresco – inevitably, given the thousands who would attend the major festivals – but in many sanctuaries buildings were provided to accommodate the couches on which a privileged few might recline. These often have a porch, with rooms accommodating 11 couches round their walls. Some provide more accommodation. The great banqueting building at Epidaurus had six 11-couch rooms, but also two large halls each holding more than 100. Such buildings were invariably arranged round a courtyard, and this principle, adapted from the now normal form of the Greek house, could serve a variety of other purposes, particularly the enclosed exercise ground. Other specialized buildings are found attached to sanctuaries, perhaps in an area away from the temple/altar complex, such as the open-air theatres and music buildings (odeia), and the stadium for athletic contests. Where a cult placed particular significance on performance, the theatre might well be architecturally dominant, with only an insignificant temple, as in the sanctuary of Dionysus at Athens. The entrance to the sanctuary on occasions (but not always) might be given an elaborate gateway building or propylon, two colonnaded porches placed in front and behind a wall with the actual door openings. The coherence of all these structures within the sanctuary would normally depend on the repetitive use of the architectural order; though use of the orders soon spread outside the sanctuaries, they originated specifically in the religions context.

Some sanctuaries might require special buildings. Major sanctuaries, like Olympia or Delphi, which were international in character, were often given buildings as offerings by individual cities to the presiding deity; these ''treasuries'' generally took the form of miniature temples. Others had particular cult requirements, the most important being those cults where the ritual involved the performance of secret procedures seen only by people who had been initiated into the cult. Foremost was the cult of Demeter and Kore at Eleusis, where a large enclosed and roofed building was put tip (following earlier and smaller structures) in the 5th century BC; eventually, this too was given a colonnaded porch.

Such sanctuaries continued to be built and used during the Roman period; the Roman form of temple was similar, but generally stood on an elevated podium, approached only from one end. There are surprisingly few specifically Roman-form (as opposed to chronologically Roman) temples in the Greek world, except at places such as Corinth, which had now become actual Roman colonies. Generally, Greek religion remained loyal to the Greek type of temple.

The acceptance by the Greek world of Christianity brought about a profound change. The new religion was both initiatory and congregational; it required closed buildings in which the ritual could be performed, but large enough to accommodate the congregation. The model for this therefore was not the pagan sanctuary with its outdoor altar and sacrifices, but the Roman basilica, a building form that had developed in the 2nd century BC, almost certainly from Hellenistic royal origins (hence its name), but used by the Romans essentially for secular purposes: legal actions, political gatherings, commercial transactions. It would normally be one of the buildings attached to the forum of a Roman city, and comprised a rectangular hall with a platform for a presiding magistrate or judge, usually at one end, and formed by an apse projecting from the main hall. To support the roof, it was divided along its length by two rows of columns supporting a clerestory, with the roof itself carried on wooden beams. Because of developments in Roman woodworking technique it was now possible for the central nave to be reasonably wide; together with the aisles to either side it could hold a congregation easily. In secular Roman architecture the form of the building remains conservative for most of its history. The columns bear a horizontal architrave, and the roof supports remain wooden.

Such a building required virtually no modification to serve as a church. The apsidal tribunal, filled with semicircular tiers of seats, accommodated the priests. Privacy was maintained during services by the construction of a closed porch across the front of the building, the narthex, to which the catechumens, those seeking to become members of the church, would be admitted and from which they could glimpse the proceedings. Outside this, and in major examples, an enclosed colonnaded court provided additional privacy. Such Christian basilicas were built at Rome (Old St Peter's, San Paolo fuori le Mura) and at Constantinople, as well as in the older Greek cities. There was a particularly large and splendid basilical church at Lechaion, the harbour town of Corinth.

An alternative form of church developed in the Greek areas. It seems to have originated with a special type of building devised to embellish burial places, particularly of people designated saints; a most important example was the church covering the Holy Sepulchre in Jerusalem. For this an alternative Roman form of construction, the dome, was adopted. In the first instance it came over circular buildings, and is obviously related to a whole range of Roman secular structures. At the same time, there were large roofed halls in other structures, where the roofs were not supported by wooden beams, but formed by concrete vaults, particularly the great cross-vaulted cold rooms, the frigidaria, of Roman imperial bath buildings. One secular basilica, that of Maxentius and Constantine at Rome, had already employed this system in a freestanding building. The new development was to combine the domed structure with the vaulted hall, using the device of pendentives to transfer the circle of the dome to a square of massive piers linked by arches. In front of this, the nave and aisles would be vaulted over piers linked by arcades; behind, the projecting apse, as in colonnaded basilicas, was covered with a semidome. Subsidiary domes might replace the vaults in the body of the church. Such construction culminates in the great churches of St John at Ephesus, and Hagia Sophia at Constantinople. Although there is no hard and fast rule, later churches in the Greek cast tend to the domed form, those in the west the basilical. Thus it was the Orthodox domed church that influenced the Islamic architecture of the Ottoman empire, while in the west the basilica led to the medieval cathedral.

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See also **Altars; Sanctuaries**

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ARCHIVES

Archives, in the modern sense of the term, were slow to appear in ancient Greece and even then never really corresponded to their modern counterparts in form or function. Oral tradition remained paramount at least until the 5th century BC. Written documents were not necessarily viewed as authoritative or considered important in and of themselves until relatively late in the Classical era. While the Mycenaeans certainly created written records, as witnessed by the many surviving tablets in Linear B, little can be said about their retention and organization. Record-keeping remained sporadic and unsystematic throughout the Archaic period. Cities often recorded important public documents, such as laws, lists of officials, and treaties, on stone. These inscriptions might be found in a variety of locations and in no way constituted a single collection of public records, although groupings of inscriptions are sometimes referred to as archives. Both individuals and cities often used temples as repositories for documents; Heraclitus, for example, allegedly deposited a copy of his writings in a temple of Artemis. Records not deemed worthy of stone were consigned to less durable media, such as wooden tablets (*pinakes*), whitened boards (*leukomata*), and papyrus.

Athens instituted a central archive, the Metroon, in the late 5th century BC (probably between 409 and 405 BC). This was placed in the old council house (Bouleuterion), when a new council house was built on an adjacent site. The building served as a shrine to Demeter as well as the archive, hence the name Metroon. The archives were under the jurisdiction of the Council (Boule) and were staffed by public slaves. It is likely that the contents originally consisted largely of council documents: decrees, correspondence, treaties, etc. As in the past, the keeping of administrative records usually remained in the hands of the individual officials. Many of these officials failed to keep records or treated them as temporary mnemonic devices to be destroyed once their purpose was served. Later in the 4th century BC other documents, such as laws, came to be placed in the central archives. Individuals began depositing personal documents in the public archives at some point in the late 4th century BC. Epicurus deposited his will (Diogenes Laertius, 10. 16) and probably copies of many of his writings in the Metroon.

By the later 4th century BC the use of written documents was increasing. Greek cities of the 4th century BC and Hellenistic period usually had an archive or record office. These served as depositories for the original copies of public records, usually on papyrus or parchment. Private documents, such as contracts and wills, were also frequently deposited in city archives (Aristotle, *Politics*, 1321b). Important public documents might be inscribed on stone in a public place as well; these have sometimes survived. The contents of these "stone archives" tended to be selective and focused on a particular theme. The documents often concerned the rights and privileges of the city. At Priene a small archive on stone preserved decrees and letters of Alexander the Great and Lysimachus that apparently granted various rights to the Prienians. Similarly at Aphrodisias a number of inscriptions document relations between the city and Rome from the late Republic to the time of Septimius Severus with the aim of establishing grants of autonomy and immunity to the city by Rome. Local cults and festivals also figure prominently in Hellenistic inscriptional archives. An example is an archive from the agora of Magnesia-on-Maeander, which concerns the Panhellenic festival of Artemis Leukophyrene.

The best-known and most developed Greek archives are those found in Ptolemaic and Roman Egypt. These tended to be more elaborate than those found elsewhere in the Greek world, reflecting the highly bureaucratic nature of Egyptian society. In addition to the central archive in Alexandria, each district (*nome*) had its own archive, which kept records of many private transactions as well as official ones. Many larger villages had their own record offices (*grapheia*) which kept local records and sent copies or summaries of these to the *nome* archives. The workings of the *grapheion* in the village of Tebtunis during the 1st century AD are particularly well understood thanks to the many surviving documents. In the Roman period the *nome* archives also sent summary records to the central archive in Alexandria. Many private archives of Graeco-Roman Egypt also survive in part. While some of these represent accidental groupings of related papers, others indeed represent conscious record keeping by individuals or families. Some of the better known archives of this type include those of Zenon (3rd century BC), Nemesion (1st century AD), Heroninus (3rd century AD), Aurelius Isidorus (4th century AD), Abinnaeus (4th century AD), and Dioscouros of Aphrodito (6th century AD).

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See also **Inscriptions**

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ARGOLID

Region in southern Greece

The Argolid is most simply defined as the territory of Argos when it was a city state, but simple definitions are never complete. Argos came to control the entire plain which it dominates geographically from the west, but beyond that there are other areas which in a broad sense constitute part of the Argolid, but which were not part of Argos. Often the term Argolid is taken to include the whole of the area between the Saronic Gulf to the north and the Gulf of Argos to the south, but it is best restricted to the plain and its surrounding mountains, for within the wider area the plain of Argos is distinct from the mountainous and more broken region to the east. All the important communities are positioned in or around the plain; of those beyond, Epidaurus, though claimed by Argos, was rarely under Argive control, while the more distant cities of Troezen and Hermione were always completely separate entities. It is the Argive plain that matters.

Along the plain's southern edge is an extensive sweep of beach; though the ancient coastline was inland from this, it must have been similar. The plain extends northwards to form a roughly triangular area. Argos is almost at the southwestern corner; at the southeastern corner is Nauplia (modern Navplion), and, a little to the west, Tiryns. Mycenae is, more or less, at the northern apex. Today the best harbour and most important town are at Navplion. In antiquity Tiryns probably had little more than an open beach and probably used Nauplia's harbour. Argos is further away from the sea, but evidence for overseas trade is clear for the Archaic period, and some form of maritime outlet is certain.

Otherwise communication and access are by land. Until recently the main route, followed by road and railway alike, entered the plain from the north, from the territory of Corinth and its neighbour Phlious down past Mycenae. It left Argos heading south, where, near Lerna, the mountains come closer to the sea; it then went across a smaller plain, into the hills that took it up to Arcadia, the centre of the Peloponnese, or along the coast into yet another plain, the Thyreatis, the possession of which was long disputed between Argos and Sparta. The Argive plain was therefore of some strategic significance, coming between the central and southern Peloponnese and the north, but it was not as strategic as Corinth, which could block the passage from south to north absolutely. There were alternative routes past the Argive plain through the hills and mountains to the west, from Arcadia, past Tegea and Mantinea, across to Phlious, and down to Sicyon and the gulf of Corinth. The modern motorway follows part of this route past Mantinea and over to Phlious, although this is only achieved with the help of a substantial tunnel. Nevertheless, the pass over the mountains at this point was always feasible, and this was the route preferred by the Spartan armies.

The Argive plain is potentially fertile. Though no great river flows through it, the surrounding limestone hills retain the water, and there are abundant springs round its edge. It is here that the communities grew up, and there is much evidence for settlement already in the Neolithic period. By the Early Bronze Age there were important communities around the plain, especially on the site of Argos itself, but the period of greatest significance was undoubtedly the Late Bronze Age, generally termed the Mycenaean Age to give emphasis to the apparent predominance of that state. This is based partly on archaeological evidence, and partly on an interpretation of the Homeric poems, which give supreme authority to Agamemnon, king of Mycenae, over an alliance of the whole of mainland Greece. How far this reflected political reality is impossible to say, but in so far as there is evidence of a common standard of material existence and wealth in mainland Greece, the importance of Mycenae is certain, though it is an importance shared with the other communities of the Argolid.

How this wealth was acquired is unclear. Today the plain produces a mixture of crops, including citrus fruit, but in antiquity much of it was probably used for corn. Horse-rearing also seems to have been significant, particularly in the Late Bronze Age, and remains of horses have been found deliberately buried, presumably with their owners, in Late Bronze Age graves. Homer often mentions horse rearing and describes Mycenae specifically as "rich in gold", though this would have come from elsewhere. Mycenae, with its heavily fortified citadel, is often compared to a robbers' lair, but this is over-dramatizing the situation: the fortifications are repeated at Tiryns and elsewhere in this period, and are essentially defensive. Control of the sea may have involved overseas raiding – the genesis of the story of the siege of Troy may lie in a memory of such activity – but trade and exchange, however it was conducted, is the likeliest explanation for the Argolid's wealth.

Argos seems to have been less important in the Late Bronze Age than in the succeeding Classical period, and this can lead to some confusion, since Athenians in the 5th century BC were liable to attribute the Homeric stories to the kings of Argos rather than Mycenae, which by the 5th century BC barely existed. More significant is the existence of a whole string of communities along the eastern side of the Argive plain, starting with Mycenae in the north. Not all their ancient names are known. Next to Mycenae is the locality known as the Argive Heraion, where the most important of the Classical sanctuaries developed. Graves indicate that there was a prehistoric settlement here. A short, dry gorge leads northeast to the small plain of Berbati, with hills all round except at the point of entry: again, a place of Late Bronze Age settlement. Further south are Dendra, with important graves, and Midea, with its long fortification wall leading to a remote hilltop site. Finally, at the southern end of this string of communities is Tiryns.

There is a pattern to these places. There is a reasonable degree of separation between them, so that they could function independently. They are all situated at springs, or where springs once existed, another clue to their existence. Whether they actually were independent, or whether they were all placed under the control of one authority, is not known. Mycenae and Tiryns were both equipped with structures suitable for a ruler and his needs. Their fortifications were very extensive, with spectacular and well-defended entrances. Inside the fortifications

of both places was a rectangular building, with a porch at one end and a ceremonial hearth within. These buildings have been identified as palaces and would seem to have been where rulers could perform their official duties. Both buildings have storage space and have yielded evidence of imported goods from overseas. Mycenae, more than Tiryns, has massive cemeteries with different types of graves. The earlier shaft graves, which were excavated in the 19th century by Heinrich Schliemann, contained the fabulous gold treasures and other objects now in the National Museum at Athens. The later graves include the tremendous tholos tombs with their high corbel-domed chambers which, though mostly robbed centuries ago, still impress with their structural competence and scale. More ordinary graves, particularly rockcut chamber tombs, which are related in form to the tholoi, have been found at all the Late Bronze Age sites. Although these tombs probably belonged to people of lesser rank, they often contained offerings of value. Taking all this into account, and comparing it with other regions of Greece of the same period, it is clear that in the Late Bronze Age the Argolid was the wealthiest and the most important area of mainland Greece, and that it had taken over from the earlier supremacy of Minoan Knossos in Crete.

In the 11th century BC all this collapsed, despite the construction of massive fortifications in the principal centres. What eventually emerged in the 8th century BC was rather different. Some of the Late Bronze Age centres continued as communities, such as Mycenae, Tiryns, and Asine, near Nauplia. They may, like Mycenae, have patched up their stupendous fortifications. Mycenae's connection with the heroes of the Homeric poems was accepted, and the hero worship of Agamemnon was established in the greatest of the tholoi, which was identified as his tomb (or, alternatively, as the treasure chamber of his father, Atreus). Tiryns also continued to be inhabited, but, like Mycenae, seems to have had a much-reduced population. According to Herodotus, at the time of the Persian invasions in the early 5th century Mycenae and Tiryns, unlike Argos, sided with the anti-Persian alliance and between them could only field an army of 400 men. The Argive Heraion was now a sanctuary, rather than a settlement. The lead undoubtedly had passed to Argos. Behind this development lies the arrival, into a depopulated region, of Dorian settlers who established themselves at Argos rather than the eastern sites, which perhaps overawed them with their massive remains. At Argos they settled on the lower ground below the citadel, just as at Sparta they chose a new, low-lying site across the river from the Bronze Age settlement. The eastern Argolid communities may have continued to be descended from the earlier population. The Argive Heraion, to judge from the objects deposited in it, at first belonged to its eastern geographical neighbours.

In the 7th and 6th centuries BC this changed as Argos took political control of the entire area. The Heraion now became the principal sanctuary for the whole of the Argolid. It was this that made Argos one of the major cities of Classical Greece, though its control was briefly broken as a consequence of the Battle of Sepeia in about 494 BC when it was defeated by Sparta, and Mycenae and Tiryns regained their independence. It was not long, however, before Argos recovered and reunited the Argolid under its control. But the Argolid never regained the preeminence it had enjoyed in the Late Bronze Age. The overseas trade, and the benefits of that trade, moved from the gulf of Argos to the Saronic gulf and Athens. All this is reflected at the Argive Heraion. The sanctuary is an important one. It contains the remains of one of the earliest peripteral temples in Greece which, although its columns were of wood, is likely to have been a forerunner of the Doric order. Destroyed by fire in 416 BC, it was replaced with a more up-to-date stone temple. Little of this replacement remains, apart from its foundations, but the sculpture, including the cult statue, was attributed to the greatest of the Argive sculptors, Polyclitus. Even so, and although in its design it shows Athenian influence, this temple nowhere approaches the Athenian buildings in quality or magnificence.

The later history of the Argolid is relatively uneventful, and is essentially that of the city of Argos. During the Roman empire the Argolid continued as a prosperous backwater, with most of the population probably living in the city. There is a Roman bath building at the Argive Heraion, which was excavated in the early 20th century, and which has partly eroded away. Otherwise there is little Roman construction outside the city. There are some good examples of late mosaic floors, now in the Argos museum, which indicate continued prosperity into the 5th century AD. Later still, scattered over the Argolid, and often incorporating the remains of Classical buildings, are a number of delightful but small Byzantine churches which suggest a population living in villages, most noticeably on the eastern side of the plain, and continuing a traditional pattern of life.

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ARGOS

City in southern Greece

The city of Argos has a continuous history from the Neolithic period to the present day. It centres on two hills, the high acropo-lis, called the Larisa, to the south, and the lower, rounder Aspis to the north. The main area of settlement is on the eastern side of these two hills. Of the earliest occupation only traces remain, but of the Middle Bronze Age there is more substantial evidence, particularly on the Aspis. By the Late Bronze Age the hills were fortified. They look across the plain towards Tiryns, on the coast, and Mycenae, further inland. The relationship between the three communities during this period is imprecisely known; Argos may have been the least significant of the three, and as such perhaps the least likely to survive during their decline at the end of the Late Bronze Age. Whatever the reason, it was occupied by new settlers, of Dorian origin, who seem to have assimilated the descendants of the original population. By the 8th century BC Argos was again a

flourishing city and a leading community in the Greek world as it emerged from the obscurity that followed the collapse of the Late Bronze Age states. It produced an abundant sequence of pottery decorated in the Geometric style, less refined than that of Athens, but equally vigorous. Much survives from local burials, indicating a degree of prosperity in the community, Even more significant is the suit of bronze armour – comprising a helmet, breastplate, and shield – that was found in one of the graves at Argos, named the "Panoply Grave" after this discovery. The bronze from which this armour was fashioned would have been imported, a sign of revival at Argos, and it probably indicates the first stages in the development of the form of warfare which led to the heavily armoured infantryman, the hoplite, of Classical history.

There is a tradition that at this time Argos controlled a wide area of the Peloponnese, but this was still a long time before true historical record began, and it may be an anachronism, either a reflection of the larger territorial states of the Late Bronze Age or the predominance of another city, Sparta, in the Classical period. It is unlikely that in the 8th century BC Argos controlled even the eastern side of the Argive plain.

During the 7th century BC Argos underwent changes. The city's pottery industry seems to have collapsed, or, at least, ceased producing vases to be deposited in graves. Political resurgence brought a certain Pheidon to power. He is described by Aristotle as a king (meaning, perhaps, that he exercised traditional religious and military power) who became an authoritarian ruler (a tyrant, in the Greek sense) seizing control of the Olympic Games on the other side of the Peloponnese and engaging in war with the Spartans as well as with more closely neighbouring cities. He is also said to have introduced a standard of coinage, an anachronism for the 7th century BC and possibly again a misinterpretation. Whatever the truth of all this, Argos was by that time clearly becoming a major city, powerful enough to challenge Spartan supremacy in the Peloponnese, though not to prevail. At the battle of Sepeia (494 BC) the Argive army was crushed by the Spartans, and Argos forced into a submissive peace. Subsequently Argos was invited by Athens and Sparta to join their resistance to Persia, but Argos tactfully set impossible conditions, so justifying its refusal and doubtless hoping to play the Persians against the Spartans. When the peace between Argos and Sparta expired after 30 years, the Argives, this time in alliance with the Athenians, challenged the Spartans but again were crushed. Nevertheless the city flourished. On the lower ground below the Larisa the agora was developed at this time, its edges being delimited in part at least by extended porticoes (stoas) of a thoroughly up-to-date form. A further attempt at victory over the Spartans, again in alliance with the Athenians, ended in defeat for the Argives at the Battle of Mantinea in 416 BC. In the years that followed Argos rallied support from other Peloponnesian cities who had turned against Spartan authoritarianism. This led to the so-called Corinthian War, during which an interesting political experiment, a union between Argos and Corinth, gave much alarm to the Spartans, who duly suppressed it.

A revival in the city's fortune came about fortuitously when the Macedonian kings, whose family name was Argeadae, claimed descent from the legendary kings of Argos, apparently on the dubious basis of the similarity of name and the invention of a fictitious genealogy. This meant, after the Macedonian victory of Chaeronea, that the Argives were in favour. Even after the death of Alexander the Great and the confusion which followed, Argos remained loyal to its Macedonian connection, and eventually to Antigonus Gonatas who ruled Macedon for much of the first half of the 3rd century BC. His enemy Pyrrhus tried to take Argos by surprise, but lost the initiative when one of his battle elephants (previously used spectacularly in his fruitless war with the Romans) got stuck under a city gate. Pyrrhus himself broke into the town, only to meet an ignominious death when an old woman dropped a heavy rooftile on his head. For much of the 3rd century BC Argos was ruled by pro-Macedonian tyrants, who were derided for their subservience by Greeks opposed to Macedonian supremacy, but who were perfectly acceptable to the citizens of Argos, who prospered as a result.

The major contribution of Argos to the Classical tradition in the arts lay undoubtedly in the field of sculpture. The early Argives' skills in bronze working produced in the 7th century BC a series of decorated shields, primarily for dedication in the sanctuary at Olympia and probably reflecting the Argive involvement there. With the development of the lost-wax technique of hollow casting, these bronze-working skills were later applied to freestanding sculpture. The pioneer in this, Ageladas, is no more than a name. He is eclipsed by the 5th-century sculptor Polyclitus, perhaps a pupil, though the chronology is uncertain. Only copies of Polyclitus' works survive. One in particular, called the *Doryphoros* (spear-bearer), seems to have been produced as the sculptor's ideal of masculine human beauty. The form, as well as the style, influenced sculptors of the succeeding century, and in the Roman period Polyclitus was regarded as the supreme exponent of his art, so that Polyclitan forms are used, for instance, for portrait statues of the Roman emperors, such as the Prima Porta *Augustus*; others, incongruously, go even further and depict emperors in Polyclitan nudity.

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ARISTARCHUS OF SAMOTHRACE *c.*215–*c.*143 BC

Librarian and scholar

Aristarchus was born in Samothrace *c.*215 BC and died at the age of 72 (we are told) *c.*143 BC in Cyprus. Most of his adult life, however, was spent in Alexandria, first as tutor to several young royals of the house of Ptolemy and then as one of a distinguished line of librarians at the most famous centre of learning in the Greek world, the Museum. His predecessors were Zenodotus, Apollonius of Rhodes, Eratosthenes, and

Aristophanes. Although nowadays we tend to think of librarians primarily as cataloguers and maintainers of the texts in their collections, those at Alexandria were also scholars and occasionally, most notably in the cases of Apollonius and Eratosthenes, poets as well. (Callimachus, however, the most famous of Hellenistic poets and the compiler of the *Pinakes*, a list of authors and their works so complete that it could serve as library catalogue, never served as a librarian.)

Aristarchus has his detractors as well as fans, but despite the frequent difficulty in distinguishing his contribution from the vast amount of scholiastic material in the margin of extant Greek texts, especially the scholia of Homer, the overall nature of his contributions is clear. Like his predecessors, and much like any modern editor and commentator, Aristarchus was responsible for establishing the standard text and explaining his choice of readings and the meanings of puzzling words, expressions, character motivation, and overall meaning. Prose works, arriving in the library in fewer copies with fewer textual variants, required (or at any rate received) little work of this sort, although Aristarchus did write a commentary on Herodotus, some traces of which survive. Poetry, however, written in all the dialects ever spoken in Greece, to say nothing of the artificial forms that Homer and others felt free to create, and showing up – "published" is too narrow a term – in varying lengths for the same work and with a variety of lexical and morphological forms, required a battery of methodological skills. Homer and Hesiod, therefore, along with the more difficult lyric (notably Alcman and Pindar) and tragic poets, received the greatest attention from the Alexandrian poet-scholars.

The first task, as suggested above, was to establish a standard text, which in large part was derived from what was thought to be the best readings of preexisting manuscripts; but to a lesser extent, when the manuscripts were deemed unsatisfactory, editorial intervention was brought to bear. The gentlest instance of the latter was the use of marginal signs designed to alert the reader to questionable lines, which would be allowed to stand in the text. Aristarchus, for example, kept many lines which Zenodotus had expunged from his official text of Homer. A stronger measure would excise one or more lines or alter individual words.

Of all the poets treated by Aristarchus – Homer, Hesiod, Archilochus, Alcaeus, Pindar, Aeschylus, Sophocles, Euripides (very likely), and the comic poet Aristophanes – it is the author of the *Iliad* and *Odyssey*, thanks to the vast amount of carefully attributed scholia surviving in medieval manuscripts, who provides us with the best picture of Aristarchus' activities as both editor and commentator. In hundreds of places the scholia on Homer name Aristarchus as their source; in others a suggestion that is anonymous in the scholia is attributed to Aristarchus elsewhere, which strongly suggests that many other anonymous scholia owe their origin to him. We even on occasion learn his earlier views along with his later thoughts, as expressed in his second commentary on Homer. Some of the characteristics of Aristarchan scholarship are:

(1) Removing narrative inconsistencies. For example, to avoid inconsistency between Odysseus' account to Alcinous in book 7 of the *Odyssey* and Homer's narrative of the same event in book 6, Aristarchus altered a sunset in the earlier book to late afternoon, although, even if this was an inconsistency, rather than the result of yet one more bending of the truth on Odysseus' part, it would be Homer's and not that of a scribe; it would deserve not textual emendation so much as notice (with or without censure). In fact Aristarchus himself did this on other occasions in his separately published commentaries, as when he pointed out, without demanding alteration or excision, that the emissaries to Achilles in *Iliad* 9 ate two dinners on the same day (as what soldier could not?).

(2) Excising "improper" passages. Homer had been criticized for describing gods impiously as early as Xenophanes and most notably by Plato, but although the editorial vice of actually removing such passages is associated chiefly with Zenodotus, Aristarchus too is guilty of this. It is, for example, only thanks to Plutarch that we know the lines spoken by Phoenix in *Iliad* 9, where he says that he considered killing his own father, which were ejected from the text by Aristarchus and from all subsequent copies. But these lines are part of a long speech in which Phoenix artfully develops a parallel between his younger self and Achilles, who had threatened *his* superior, Agamemnon.

(3) "Explaining Homer from Homer". The idea behind this well-known phrase is an excellent starting point for any commentator, but Aristarchus could carry it too far, occasionally misinterpreting a Homeric word, when even a text so close in time to Homer as an early Homeric hymn would explain and defend Homer's usage. Since excesses of this sort were largely limited to his commentaries, they did not affect the text. Some close readings of the text, moreover, such as Aristarchus' attempts to understand the point of individual similes, can still stand.

Many of Aristarchus' readings were adopted by later editors and still appear in current editions. More important than any tabulation of his presence in later texts, however, is the example that he and his fellow Alexandrian editors left for their successors. For all that their methodology has been tempered with a greater understanding of Greek historical linguistics and the nature of poetry, their diligence and desire to explain all puzzling passages on rational principles remain the core of modern editorial practice. Their philology is our philology.

DAVID SIDER

See also **Scholarship**

Biography

Born in Samothrace *c.*215 BC, Aristarchus spent most of his career at Alexandria. He was tutor to the Egyptian royal family. He succeeded Apollonius as head librarian of the Museum and was also a scholar and critic. He produced critical editions of Homer, Hesiod, Archilochus, Alcaeus, Anacreon, and Pindar. He wrote commentaries on Homer, Hesiod, Archilochus, Alcman, Pindar, Aeschylus, Sophocles, Aristophanes, Herodotus, and perhaps Euripides. He died in Cyprus *c.*143 BC.

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ARISTIDES, AELIUS AD 117–*c.*180

Writer and orator

In many respects Aristides is a typical representative of the cultural tendencies of his age, the so-called Second Sophistic, while in others he cuts a rather peculiar figure. Born into a well-to-do family of the little town of Hadriani in Mysia, he acquired a thorough rhetorical education based on the great texts of the Greek classics and soon began to pursue the career of a professional speaker (a "sophist" in the parlance of the time) for the multifarious public occasions that the cultural life of his times provided. A long-lasting illness, however, with symptoms of physical as well as psychic distress, which broke out soon after he had returned from an educational journey to Egypt, forced him to curtail public appearances and to spend long periods within the precinct of the healing god Asclepius at Pergamum. Aristides himself documented these periods in his *Hieroi Logoi* (Sacred Discourses), relating how the god appeared in his dreams and gave him various (and sometimes quite strange) commands to fulfil, but also encouraged him to carry on with his rhetorical studies, promising that he might even surpass the great Demosthenes. The *Hieroi Logoi* thus reveal not only the workings of an overanxious and selfcentred mind, but also a singular determination to rival and outdo the best of the Classical authors he had been taught to emulate.

It was apparently in the AD 150s that Aristides was able to put his illness behind him and publicly perform some of his great speeches, among them the famous *Encomium to Rome*; in this he celebrated (not without some exaggeration) the civilizing power of the Roman empire that had given the Mediterranean and especially the Greek world a stable frame within which to survive and prosper (Aristides was a Roman citizen, a distinction probably inherited from his father). Like other Greek intellectuals of his time, however, he looked back even more to the glorious days of Classical Greece and wrote an even longer speech (the *Panathenaikos*, its title not fortuitously evoking its great predecessor written by Isocrates) extolling the cultural and political achievements of Athens in its most illustrious days. In a similar vein, his *Meletai* ("declamations", i.e. speeches conceived as if pronounced by some great historical figure in a certain historical situation) tried to bring back to life some of the most decisive moments of Classical history (e.g. the situation on the eve of the Battle of Leuctra in 371 BC; the Athenians deliberating about reinforcements to their troops fighting against Syracuse in 414 BC); and a number of hymns in prose – a genre of which Aristides even claimed to be the inventor – praised the gods of Classical religion. Still, at least some part of his rhetorical activity was also directed to the present. Like Dio Chrysostom, he addressed various cities and exhorted them to put aside their internal differences and rivalries with each other. His most remarkable achievement in this domain is the speeches on Smyrna, which he addressed to the Roman emperors Marcus Aurelius and Commodus after the city had been levelled by a disastrous earthquake in AD 177 or 178; these speeches actually moved the Roman authorities to contribute decisively to Smyrna's resurrection.

Some of Aristides' most elaborate works were probably never performed, but were disseminated in written form and soon proved to be influential. In three long essays he intervened in an intellectual struggle of already long standing, that between rhetoric and philosophy, both of which claimed to be the most important subject of a higher education. Since Plato had carried out his formidable attacks on rhetoric in the *Gorgias*, that struggle had never ceased, and now Aristides came down emphatically on the side of rhetoric. A long double essay *On Rhetoric* proclaimed the pre-eminent worth of its subject against philosophy, and the equally long *In Defence of the Four* aimed to rehabilitate the achievements of the four great Athenian statesmen and generals Miltiades, Themistocles, Cimon, and Pericles, which had been ferociously taken apart in the *Gorgias*. Later on, the Neoplatonists took these attacks on their founding father seriously enough to react to them: in the latter part of the 3rd century AD Porphyry wrote *Against Aristides* in seven books, and in the 5th century Olympiodorus and Proclus still felt obliged to take note of Aristides' essays.

It was, however, in the field of rhetoric itself that Aristides proved most influential. He was one of the foremost exponents of literary Atticism in his age, and his efforts to make his style conform as much as possible to the way Attic authors had expressed themselves some 500 years earlier were astonishingly successful. He had no gift for extemporizing speeches (an ability that was very much sought after in his time), but rather preferred to polish his texts as meticulously as possible in his study. This may in fact have assured their survival; Aristides is one of the very few typical authors of the Second Sophistic whose work was preserved beyond the end of antiquity, and he even belongs to the small number of Greek writers whose works survive almost in their entirety. For centuries after his death (which probably occurred around AD 180) Aristides very nearly attained the goal he had so fervently pursued: to surpass Demosthenes. Already in the 3rd century AD the rhetorician Longinus regarded him as the defender of Atticism against the dissoluteness of so-called Asianic oratory (characterized by bombast and emotion); at about the same time the rhetorical treatises of Menander of Laodicea (who also wrote the first commentary on him) cite Aristides as often as Isocrates and Plato and considerably more frequently than Demosthenes and Lysias. In the 4th century AD Libanius and Himerius show his influence: Libanius wrote set pieces against declamations that Aristides had worked out (e.g. his *Embassy Speech to Achilles*) and the *Hieroi Logoi* provided inspiration for his autobiography, while Himerius' *Polemarchikos* drew on Aristides' *Panathenaikos*. At about the same time Sopater of Apamea provided an *Introduction* to Aristides' work and commentaries, which – together with the exegetical notes of other authors – later became a part of the extensive scholia (explanatory notes) that were added in the margins of the manuscripts.

After the dark centuries of early Byzantium we find Aristides holding an important place in higher education. Photios in his *Bibliotheca* (cod. 246–48) provided excerpts of the *Panathenaikos* and the long anti-Platonic speeches on rhetoric; in the 10th century archbishop Arethas ordered the writing of what today is

the most important Aristides manuscript (A, Oxford, Bodleian Library, MS E.D. Clarke 39) and added notes to it. In the 11th century Theodora (daughter of the emperor Constantine VIII and later an empress herself) copied a text of Aristides in her own hand, and Michael Psellos commended studying him – besides such classics as Demosthenes, Isocrates, and others – as a necessary means for attaining mastery of style. The Palaiologan renaissance preserved Aristides' influence; two speeches *On Exemption from Public Burdens* (also called the "Leptinean orations") by Thomas Magistros (who also excerpted Aristides for his lexicon) even found their way into the Aristidean corpus. In the 14th century Theodore Metochites not only modelled his *Byzantios* on Aristides' encomium on Rome, but also wrote an essay comparing Aristides and Demosthenes, and in the 15th century the *Hieroi Logoi* still provided inspiration for John Chortasmenos's reports on his own sickness. The fall of Byzantium finally put an end to Aristides' long importance as a model for elaborate rhetorical writing.

HEINZ-GÜNTHER NESSELRATH

Biography

Born in AD 117 at Hadriani in Mysia, Aristides was educated in Athens and Pergamum and travelled widely (to Egypt, Cyzicus, and Rome) before settling at Smyrna. Chronic illness forced his (temporary) retirement and enabled him to pursue his rhetorical studies. He became a great exponent of literary Atticism for which he was much admired by posterity. He died *c.*180.

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ARISTOCRACY

Rule by the "best"

Aristocracy (*aristokratia*), a form of government based on the principle that the "best" should rule, is a compound of the Greek words for the best (*ariston*) and rule (*kratos*). Aristocracy may appear similar to rule by the rich (plutocracy), or by the few (oligarchy), or by honour (timocracy), but it is distinguished by the exercise of power by a hereditary minority, usually a relatively small landed class. Aristocrats claim to be the best because they are the possessors of some superiority by blood, lineage, rank, talent, virtue, or wisdom, which becomes a legitimizing principle. A variety of socio-political practices and political arguments have been used to justify the resulting privileges. Aristocracies develop traditions to set themselves apart from the common mass of people. By adopting distinctive styles of behaviour, dress, habits, speech, interests, education, and even sexual practices, aristocrats are marked as qualitatively different from ordinary people. These cultural distinctions are inculcated into all members of the aristocratic families. Aristocrats seek to maintain themselves by the principle of purity of blood so that only a noble may marry a noble. They usually maintain control of the principal sources of wealth, military training, and the institutions of religion. By means of these controls power can be held for generations. Aristocracies degenerate in several ways. Excessive inbreeding can eliminate the vigour needed to rule. Intermarriage with the *nouveaux riches*, or with powerful oligarchs, to renew ebbing fortunes violates the genetic principle and puts the aristocracy up for sale. Or they may simply fail to cope with changing times.

In Homer "the best" usually means the best warriors. By the Archaic period the Homeric military elite of merit had changed to a nobility of birth. When combined with the advantages that family traditions and wealth provide, aristocracy can produce those who are the apparent "natural leaders" of society, Greek aristocratic families claimed that descent from a heroic or mythical person set them apart from and above others in every generation. The aristocrats were the eupatrids, or those born to "good fathers".

In the 8th century BC when the Greek city states were emerging from the Dark Ages, the kings of earlier times had all but vanished, except at a few places such as Argos and Sparta. Elsewhere kings were replaced by or dominated by aristocrats. For the next few centuries the aristocrats ruled or dominated their respective city states, usually through a council (*boule*). Often the ruling class came from only one clan.

By the end of the 6th century BC socioeconomic and military changes brought challenges to aristocratic power. Growing population pressures and economic difficulties impoverished small farmers. Lenders, often aristocrats, sold indebted fellow citizens into slavery. These conditions and practices led to socioeconomic tensions which were aggravated by the revolutionary changes in warfare. In the heroic age aristocrats had

been the most powerful warriors. Riding to battle on a horse or in a chariot, they often fought only their social equals. Now the hoplite, a heavily armed, middle-class soldier, fighting as part of a unit called a phalanx, became the core of the city state's army. The new middle class, who could afford the armour but not the horse, demanded a share of the political power. When the aristocrats refused to accept reforms, the ensuing conflict with the lower classes turned into class warfare.

In some cases of civil strife in the city states a disgruntled aristocrat would lead the people in revolt against the aristocracy. These "class traitors" eventually acquired the name *tyrannos* (tyrant). Cypselus became tyrant of Corinth after the aristocratic family, the Bacchiadae, were overthrown. The 5th century BC was virtually the age of tyrants in Greece, a time when the old aristocratic system was breaking down, to be replaced by oligarchies, or democracies. The civil strife ended in some city states, such as at Athens, with a democratic form of government. Elsewhere it produced oligarchies. In Sparta, however, the regime was successful in suppressing any democratic tendencies that threatened the prevailing aristocracy.

Athenian aristocratic families included the Alcmaeonidae, Philaedae, Eumolpidae, Phytalidae, Eteoboutadae, and Lycomidae. Individual Athenian aristocrats included Draco, Solon, Hippias, Cleisthenes, Pericles, and Alcibiades. Individual Spartan aristocrats included Lycurgus and Leonidas. The Presocratic philosopher Heraclitus of Ephesus was an aristocrat, as were many other philosophers, including Plato. The rise of democracy reduced the power of aristocrats, yet they often provided the leadership in many fields.

Plato in his *Republic* advocates rule by an aristocracy of intellect. Generally, aristocrats have avoided intellect as a criterion of membership in the aristocracy because there is no guarantee that remarkable aristocrats will have anything other than ordinary children. Aware of this, Plato rejected physical succession in his Utopia in favour of a system of recruitment that sought the best and brightest, even if born into the lower orders. Aristotle's theory of aristocracy, as developed in the *Politics*, has been used over the centuries to support aristocratic aspirations. He argues that aristocracy is the good form of rule by the few because they are the best from virtue, and that such a regime itself cultivates virtue in the city state.

In the Hellenistic age a few aristocratic families continued their traditions, but for the most part the Hellenistic kings ruled through bureaucracies, as did the Romans.

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ARISTOPHANES

Athenian comic dramatist of the 5th–4th centuries BC

Aristophanes composed 40 comedies, 11 of which have survived, the earliest of these being datable to 425 BC and the last to 388. In the course of the Classical period comedy underwent great changes in character and structure. Aristophanes is a representative of Old Comedy – its supreme representative, in the judgement of late antiquity, and therefore the only one whose works have survived.

Nothing quite like Old Comedy exists in the modern theatre; it comprises elements of farce, but includes much that we associate with pantomime, situation comedy, savage political satire, and animated cartoons. Its dramatic time is always the present, and its topicality constitutes one of its essential differences from the universality of "New Comedy", which held the stage two generations after Aristophanes' death. The characters in some of his comedies were living people known to the audience, such as Euripides (in *Acharnians*) and Socrates (in *Clouds*). The plot sometimes turns upon an issue which was a real political issue at the time of performance.

By no means are all Aristophanes' plays political, and whether they are or not, the resolution of the plot entails unlimited fantasy. In *Birds*, for example, a plausible Athenian persuades the (Greek-speaking) birds to build a city in the sky and lay siege to the gods; and in *Frogs* the god Dionysus travels to the underworld and presides over a poetical contest between the ghosts of Aeschylus and Euripides. The operation of cause and effect in the world as we know it is suspended to whatever extent the poet wishes, and the audience is not expected to say "But how could. . ." or "But surely. . .!" because consistency is readily sacrificed. In *Lysistrata*, for instance, an Athenian woman organizes the citizens' wives of the belligerent states to go on a sex strike until negotiations for peace are opened. The plot envisages that while the younger wives stay at home, tantalizing and frustrating their husbands, the older women occupy the Acropolis; but then we find that *all* the wives have shut themselves away on the Acropolis.

Whereas there is some evidence that some of Aristophanes' plays were performed in the Greek cities of southern Italy and Sicily for a while after his death, that seems not to have been the case in Athens, where popular taste in comedy changed rapidly and fundamentally. In the 3rd century BC, however, scholars were attracted to the reading and study (though not the performance) of Aristophanes, and successive commentaries on his texts were composed. By about AD 900, when interest in ancient

pagan literature revived at Byzantium after a long lapse, manuscripts of 11 out of the original 40 plays could still be found, and within those 11 a canon of three took shape: *Wealth* (*Plutus*), *Clouds*, and *Frogs*. *Wealth*, far in the lead in respect of the number of medieval manuscripts which contain it, owed its popularity and educational utility to the universality of its theme – the "injustice" which everywhere rewards the dishonest and impoverishes the righteous – and to the consequent paucity of references which demand antiquarian knowledge. Its comparative avoidance of outright obscenity and of difficult passages in elaborate poetic language no doubt contributed to its high status.

Aristophanes became known to western European scholars in the 15th century; the first printed edition of his plays appeared in 1498, and many Latin translations followed (there was even an Italian translation in 1545). When an individual play appeared in a modern language, it was usually *Wealth*, for the Byzantine evaluation, inherited by the Renaissance, prevailed for nearly three centuries. After the beginning of the 19th century school editions of all the plays, together with translations for the educated public, proliferated. The editions were often ruthlessly bowdlerized by excision, which obscured the point of jokes, as did evasive paraphrase in translations.

According to an ancient anecdote, Plato told the Syracusan tyrant Dionysius that for a proper understanding of Athenian democracy a thorough reading of Aristophanes was essential. That advice was not taken (and probably not known) by the protagonists of the Hellenic cultural revival which from small beginnings in the 17th century increasingly came to engage Greek intellectuals at the end of the 18th century. While school pupils in the west were becoming well acquainted with Aristophanes, he had no place in the 30 volumes of Korais' *Hellenic Library*, and first found a modern Greek editor (Neophytos Doukas) in 1845. Doukas, rather like the Byzantine scholars, valued Aristophanes above all as an exponent of the Classical Attic language, whereas Korais and other participants in the Greek revival were aiming at moral and intellectual regeneration, an end to which a poet so often frivolous, cynical, and obscene did not seem to make a contribution of value. Within living memory, students at Greek universities heard no lectures on Aristophanes. There exists, however, in Greece a long and rich tradition of obscene, satirical, anti-establishment popular song, together (in some regions) with touring market-square comic performances, and it is noteworthy that the first translations of Aristophanes into demotic Greek (by Rangavis) coincided with the introduction in 1860 of shadow-plays whose stock characters always included an ingenious and imaginative rogue of Aristophanic type (karaghiozis). During the last 50 years performances of Aristophanes in demotic translation have come to be one of the most striking achievements of the modern Greek theatre.

In a typical Aristophanic play a substantial part is played by a chorus, sometimes representing animals, birds, insects, or personified abstractions. That is a tradition which Aristophanes inherited, for a vase painting dating from long before his time depicts men dressed as birds dancing in line. The chorus of *Wasps*, pitiless old jurymen, is a metaphor realized in the flesh. Except in his last two plays, *Women in the Assembly* (*Ecclesiazusae*) and *Wealth*, where we see the start of the process which soon led to the limitation of the chorus's role to song-and-dance intermezzi for which the poet did not write the songs himself, the chorus at a central point in the play steps wholly, partly, or minimally out of its role in the plot and addresses the audience directly. It may speak for the poet, as "he" or (as part of the time in *Clouds*) "I", denigrating the poets who were his rivals for prizes at dramatic festivals; it may criticize, often with a light and humorous touch, political behaviour of the citizen body; or it may (as in *Birds*) exploit with jocular imagination ideas which emerge from the plot of the play. This direct address to the audience, usually preceded and followed by lyric hymns addressed to deities, is the "parabasis" of the play, and it raises the question: when it seems to us to be serious, is it really serious?

On one occasion at least it is hard to avoid saying "yes". In *Frogs* the parabasis urges the restoration of citizen rights to the men who had been disfranchised for their involvement in an oligarchic revolt six years earlier. That was a practicable step (even if unwise), and a step actually taken some months later after disastrous defeat at sea. But it is not just in the parabasis that the question arises; it is raised also by the purposes which the "hero" of the play (there is not always one) realizes triumphantly. We can be certain that the audience of *Acharnians* contained some people who shared the view that going to war against Sparta had been a mistake and that there was now an opportunity to stop it, because we know that not everyone had favoured war at the start and that in its second year, under the impact of the plague, the assembly had seriously contemplated negotiation for peace. It is wrong, though, to think of Aristophanes as a pacifist in the modern sense; between the belief that killing is always a sin and the recognition that there are times when peace is more advantageous there is a considerable gap. Perhaps, diffidently, he was a feminist, who in *Lysistrata* and *Women at the Thesmophoria* gives a powerful voice to the dissatisfactions of women, though to his audience the idea that women (or sheep, or sharks) could organize themselves like men would have been intrinsically funny, and *Women in the Assembly* treats women as preoccupied with food, drink, and sex.

While his parodies of tragedy can be acquitted of malice, his uninhibited attacks on named individuals can hardly be dismissed as harmless fun, seeing that at the end of *Clouds* Socrates and his disciples, driven out of the school by fire and pelted with stones, suffer the fate of traitors whose crimes were judged so monstrous as to deprive them of the law's protection. Plato blamed Aristophanes for creating popular prejudice against Socrates; and there were a few critical occasions on which vilification of named individuals on the comic stage was temporarily forbidden by law. Perhaps humorous periodicals which are frequently sued for libel are the nearest modern equivalent to Aristophanes.

KENNETH DOVER

See also **Comedy**

Biography

Born probably in the 450s BC, Aristophanes was the greatest exponent of Old Attic Comedy but little is known of his life. Of 40 plays written by him, 11 have survived, ranging in date from 425 to 388 BC. They are now popular on the modern Greek stage. Aristophanes died *c.*386 BC.

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ARISTOTELIANISM

It is not possible to understand "Aristotelianism" properly without understanding the complex reception of Aristotle's works. It is true that there are concepts one immediately associates with Aristotle's teachings – the four causes, the doctrine of the mean, and the like – but Aristotle meant many things to many readers over time. As is well known, Aristotle's writings were not in circulation for more than two centuries after his death. It is not entirely clear who was responsible for recovering them, but copies of his works were evidently available in Rome in the 1st century BC. Aristotle's ideas had little detectable influence, however, except in the fields of rhetoric and cosmology. It was not until the 3rd and 4th centuries AD that Aristotle was the subject of lectures and commentary activity in the schools of philosophy at Alexandria and Athens, notably by the Neoplatonists, Porphyry and Alexander of Aphrodisias, both of whom concentrated mainly on the works comprising the *Organon*. Porphyry's *Eisagoge* (Introduction) to Aristotle's *Categories* was enormously influential through the Greek and, later, the Latin Middle Ages, as was Alexander's commentary on the *Topics*. These Alexandrian and Athenian exegetes, however, were concerned above all to reconcile Aristotle with Plato, on the assumption that in the works of both one could find the truths of philosophy, but expressed differently. By comparison with Plato, they found Aristotle notoriously obscure – intentionally, these commentators explain. In the 6th century significant commentary activity was carried on by John Philoponus and Simplicius, both students of the Neoplatonist Ammonius Hermeiou in Alexandria. In Ravenna, then the capital of the western Roman empire, Boethius produced a translation of the *Topics* into Latin and commentaries (now lost) on the *Analytics*. The Boethian version of the *Topics*, along with his *De Differentiis Topicis*, formed the core of the "Old Logic" that was to persist well into the Latin Middle Ages.

As early as the 4th century Aristotle was being translated in Edessa into Syriac. These Syriac versions formed the base for translations into Judaeo-Arabic and, in 10th-century Baghdad, into Arabic. These aroused keen interest among Muslim scholars both in Baghdad and, in the two succeeding centuries, in Moorish Spain. Among the most influential of those scholars were al-Farabi (d. 950), Ibn Sina (Avicenna) (d. 1137), and Ibn Rushd (Averroes) (d. 1198), all of whom produced editions, with commentaries (often collating Greek manuscripts checked against the Syriac), of Aristotle's major works with the exception of the *Politics*, the *Eudemian Ethics*, and the *Magna Moralia*. Like their Greek Neoplatonist predecessors, whose prolegomena and commentaries they also translated and studied, Arabic exegetes understood Aristotle as the author of a closed system and supposed him to be in complete agreement with Plato.

THOMAS M. CONLEY

See also **Aristotle; Philosophy**

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ARISTOTLE 384–322 BC

Philosopher

Aristotle was born at Stagira in Chalcidice; his father, Nicomachus, was court physician to the Macedonian king Amyntas III. At the age of 17 he went to Athens to study at Plato's Academy,

remaining a member for 20 years (first as a student and later as a teacher). Shortly after Plato's death in 347 BC, he left Athens for the court of Hermias at Atarneus in Asia Minor. He lived for two years on the island of Lesbos, where he engaged in some zoological researches and met Theophrastus, who was to become his student. In 343 BC he went to the court of the Macedonian king Philip II at Pella and there served as tutor to Philip's son, Alexander. In 335 BC, when Athens had come under Macedonian rule, Aristotle returned and founded his own school, in the Lyceum (a sanctuary located outside the eastern section of the ancient wall). There was a *peripatos* – a colonnaded walk – in the building, from which the school acquired its name – the Peripatetic school. On the death of Alexander in 323 BC there was an eruption of anti-Macedonian sentiment in Athens, and Aristotle himself was charged with impiety. He fled and came to reside on a family estate at Chalcis on the island of Euboea. One report has him stating that he fled "so that Athens might not commit another crime against philosophy" (in 399 BC Socrates had been charged with impiety, found guilty, and sentenced to death.) He died at Chalcis a year later, perhaps of a stomach ailment.

Aristotle was a student of Plato, but his own writings clearly show that he was by no means a Platonist. (Some of his early works, of which only a few fragments survive, contain Platonist elements, but these may have been propagandist writings for the Academy.) Plato's grand theory was that of the Forms. He held that certain unitary, unchanging, and perfect realities exist in a realm beyond perception. Among these realities are the Good Itself and the Beautiful Itself. The theory of the Forms has both ontological and epistemological aspects. The Forms are basic realities and so the existence of all other things (within our own changeable and imperfect realm of perception) is dependent upon them. Further knowledge, for Plato, is a cognitive grasp of the Forms. Knowledge is gained, not through a process of justification (in which experience or belief is built up into knowledge through argument or investigation), but through a process of discovery. To come to know the Forms is to turn the mind's eye towards these self-justifying realities.

Aristotle explicitly rejects the theory of the Forms. His ontology and epistemology are profoundly anti-Platonist. For Aristotle, individual substances – such as "this man here" and "this horse here" – are ontologically basic. (It has been suggested that Aristotle's emphasis on biological individuals, in contrast to Plato's emphasis on quasi-mathematical individuals – the Forms – is due to the influence of the profession of Aristotle's father.) All else is dependent upon these primary substances: particular quantities and qualities would not exist if primary substances did not exist. Further, the universals that range above individual substances – universals such as man, horse, and animal – are substances only in a derivative sense. These indicate the character of a plurality of primary substances, but they do not exist as unitary basic realities. Thus, Aristotle reverses the Platonic model: he takes what is changeable to be ontologically basic and he denies that universals are substantial unities.

Scientific knowledge, according to Aristotle, is a cognitive grasp of the cause of a thing together with an understanding that the cause could not be otherwise. Aristotle thought of the sciences as axiomatic deductive systems. (Here Plato's fascination with mathematics may have been of some influence.) According to his view, one has scientific knowledge when one can demonstrate the cause of a thing from first principles. These first principles are better known and prior to the conclusion of a scientific demonstration. Thus, for Aristotle, knowledge of, say, why snakes have a larynx but no epiglottis is akin to knowledge of why two triangles with the same base and height are equal in area. In each case, knowledge is secured through demonstration from the first principles of the relevant science. First principles, however, cannot be demonstrated. These must be grasped by some other means. Aristotle holds that our perceptual experience provides the ultimate justification of first principles. Our nature is such that we store perceptions within the soul. Owing to memory we come to have experience (a grasp of concepts based on particulars) and owing to experience we come to entertain the principles of science (concepts involving the grasp of strict universals). For example, Aristotle asserts that it is from perceptual experience that we grasp the truth that an eclipse is a certain loss of light on the moon. This, however, is not knowledge of the cause of an eclipse. Knowledge of the cause – obstruction of the sun's light by the Earth – is secured through a process of inference to the best explanation. Other candidate explanations (say, rotation of the moon) fail the test of perceptual experience (our familiarity with the precise pattern of loss of light on the moon during an eclipse suggests that the rotation of the moon is not a suitable explanation). Reason tests candidate explanations against our perceptual experience and so it is this experience that provides the ultimate justification of first principles. Aristotle's empiricism, thus, lies in stark contrast to Plato's rationalism.

Aristotle was the first philosopher to develop a theory of formal logic. His theory of deductive inference is that of the categorical syllogism. By first establishing the validity of four "perfect" (axiomatic) syllogistic forms, he was able to show which remaining standard syllogistic forms are valid. (Out of 256 standard syllogistic forms, only 24 are valid.) Aristotelian logic was for two millennia treated as the whole of logic. The logical writings constitute a singular and unparalleled achievement and Aristotle was himself aware of this. In a rare self-congratulatory passage he lauds his own achievements in logic as being entirely without precedent among Greek philosophers.

In areas where his predecessors had expounded theories, Aristotle would often begin his own studies by setting out, analysing, and comparing their views. He would then explore what is common among such theories, mark differences, and locate areas in which such theories stand at odds (with one another, with the perceived phenomena, or within themselves). He would then guide his own positive investigation in the light of the results of this inquiry. In such inquiries Aristotle sought to preserve what is true in earlier theories and to understand better the difficulties within a given field. (He claimed that it is impossible for one to untie a knot that one does not know.) Inquiry of this sort occupies the philosophical branch of Aristotle's dialectical method, a method of arguing from the opinions of others.

Dialectical inquiry is most evident in the works on natural science. In these works, among other things, Aristotle sets out and studies the theories of the Presocratic philosophers. We owe practically all that we know of the Presocratics to Aristotle; for a majority of the extant fragments come from his own writings, the writings of his student Theophrastus, and the writings of his Greek commentators (such as Simplicius). Within the works on

natural science we find many of the distinctive conceptual advances that mark Aristotle's thought as superior to that of his predecessors. One such advance can be found in his treatment of causality. While many of the Presocratic philosophers had attempted to account for natural phenomena through an analysis of matter, Aristotle argues that a complete treatment of such phenomena must take into account not only material causes, but formal, final, and efficient ones as well. Just as a complete account of a sculpture will make reference to its matter (bronze), its form (shape or organization), its efficient cause (the sculptor who initiated the shaping of the bronze), and the purpose for which it was made, a complete account of the genesis of a living thing, or of the organic functioning of a living thing, will make reference to four causes.

Aristotle utilizes the doctrine of the four causes within both his psychological and his biological works. In his main psychological work, the *De Anima*, he argues that soul is not a body, and yet it is also not an immaterial substance that might exist in separation from the body. Soul is the form of the living body: it is the organization-for-the-sake-of-functioning of the living thing. This theory – hylomorphism – avoids the pitfalls of both elemental materialism (which fails to give an account of purposes or goals in nature) and Platonic dualism (which, when conjoined with the doctrine of the transmigration of soul, fails to give an account of how different kinds of bodies might prove to be suitable hosts for some one kind of soul). The theory of hylomorphism is, perhaps, compromised within Aristotle's account of intellect. He suggests that intellect may be separable from the body. (This move towards dualism is, perhaps, an anomaly within his writings, an anomaly that may betray a Platonist influence.)

The doctrine of the four causes shapes Aristotle's biological investigations. (The writings on biology take up more than one-fourth of the extant corpus.) His view of nature is teleological. Thus, taking the fully developed and flourishing member of the species to be the end towards which the species itself aims, he holds that the biologist must focus his studies on healthy mature adults within a given species. The variety and depth of Aristotle's investigations into the anatomy, development, and habits of animals are dazzling. While a summary of his work in zoology cannot be attempted here, it should be noted that even into the 19th century naturalists were (re)discovering certain anatomical features of species that Aristotle had already noted in his own researches.

The central concept of Aristotle's ethics is flourishing (*eudaimonia*). The concept is also central to his political writings, for he asserts that the main function of government is to promote *eudaimonia* among its citizens. He thinks that, since humans differ from other animals in so far as they are rational, flourishing for a human must be living a certain life of active reason. We are rational, however, in two ways: part of us exercises reason and part of us is obedient to reason. Out of this distinction – a distinction between intellect and passion – Aristotle generates a theory of human excellence that treats both rational excellence and moral excellence. The moral excellences (such as courage and temperance) are means between extremes. To be temperate, for example, is to have an intermediate disposition in respect to bodily pleasures. These excellences are acquired through habituation. One becomes courageous, for example, by doing courageous things (even if at first one does not do courageous things courageously). The intellectual excellences (such as wisdom and prudence) are not means between extremes. These excellences are not acquired through habituation, rather they are taught. In his discussion of the best life, Aristotle places special emphasis on the intellectual activity of contemplation. He maintains that the life of contemplation is the best life: it is the best life in so far as it involves the activity of some divine element within us.

Aristotle's conception of God is linked to his cosmological theory. He holds that the earth is the centre of a finite spherical cosmos and that the heavens are constituted by a set of nesting concentric spheres that move eternally in perfect circles. The motion of the spheres has a first cause. This cause is an unmoved mover: it is an immaterial god. The unmoved mover (the highest sort of being) engages eternally in thought (the highest sort of activity). It is not the generative cause of the cosmos. Rather, it lives an exalted life of contemplation. The unmoved mover is eternally self-thinking thought.

After Aristotle's death Theophrastus became the second head of the Peripatetic school. Under his leadership the school thrived. He was a talented empirical scientist and a vigorous thinker intensely interested in the study of Aristotle's works. After his death the Peripatetic school fell into decline. His successors were either highly specialized thinkers (like Strato) or markedly unoriginal thinkers (like Lyco). It is probable that the Peripatetic school in Athens did not survive into the 1st century BC. Aristotle's thought, however, did not perish in the Lyceum. A considerable number of his writings have survived. In the 1st century BC Andronicus of Rhodes produced an edition of Aristotle's works and from the time of this edition there has been a continuous history of the transmission of Aristotle's texts within the Greek tradition. (The corpus as we now have it contains, perhaps, one third of what Aristotle had written.) Texts survived, but in addition Aristotle's thought did not go the way of dead dogma: his works were studied in the Neoplatonic schools of Athens, Constantinople, and Alexandria. Some of his doctrines found their way into Neoplatonism itself. (For example, the doctrine of the unmoved mover as self-thinking thought clearly reemerges in the writings of Plotinus.) These schools established a tradition of writing commentaries on Aristotle's works and in so doing they secured his legacy within Hellenic culture.

JOHN E. SISKO

See also **Aristotelianism; Cosmology; Dialectic; Ethics; Government; Logic; Lyceum; Plato; Zoology**

Biography

Born at Stagira in Chalcidice in 384 BC, Aristotle studied at Plato's Academy in Athens and remained there until soon after Plato's death (347 BC), when he moved first to Asia Minor and then Lesbos. On Lesbos he met Theophrastus, who became his pupil. In 343 he moved to Pella in Macedonia as tutor to the son of Philip II, Alexander. In 335 he returned to Athens and founded the Peripatetic school in the Lyceum. After Alexander's death he was charged with impiety and fled to Euboea where he died in 322 BC.

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ARISTOXENUS

Writer on music in the 4th century BC

Born around 370 BC in Taras (Latin Tarentum; modern Taranto), Aristoxenus grew up when this town was ruled by Archytas the Pythagorean. His first instructor was his father Mnesias, a musician, and it is by this title, *musicus*, that Aristoxenus was persistently called, although in his case this term must be understood to refer primarily to his theoretical writings on music rather than to the skill he had in singing and in plying instruments. (That he has such abilities is demonstrated by his basing his theory of harmonics on aesthetic principles at variance with the purely mathematical views of more orthodox Pythagoreans.) His later teachers included the obscure Lampros of Erythrae (perhaps while still in Taras), then the Pythagorean Xenophilus, and finally Aristotle. His reputation in the Lyceum was such that he expected to be head of the school after Aristotle's death. That the headship fell instead to Theophrastus, whose interests were are wide-ranging as Aristotle's (including some technical works on music), should have come as no surprise.

Aristoxenus, for all his 453 books (as tallied by the *Suda*) on various philosophical, biographical, and historical topics, seems to have concentrated his best efforts on music. Indeed, we now know very little of his straightforward philosophical works, not even how large a proportion of the whole they formed. His comments on the nature of the soul owe little if anything to Aristotle's *De Anima* but have more to do with Pythagorean ideas of harmony in the soul such as are found in Plato's *Phaedo* and *Timaeus*. Since our sources (chiefly Cicero and Lactantius) associate these ideas with musical harmony, Aristoxenus may well have introduced them in his musical writings rather than in a separate work on the nature of the soul. Some sources refer to his *Hypomnemata* (Memorabilia), but this is a catch-all title that says nothing about the work's subject matter; other sources add the word *Miscellaneous* to the title. Here too Aristoxenus is said to have discussed musical matters, although perhaps not as technically as in his treatises devoted to the subject. Even his biographies may have been chosen because of his interest in music. This is obviously so in the case of his comprehensive work entitled *On Tragic Poets* and a separate life of Telestes the dithyrambic poet but, even in his biographies of Plato, Socrates, Archytas, and, of course, Pythagoras, he would have had much to say about their views of music as well as more usual matters, such as Socrates' two wives and Plato's travels. The quality of his biographical writings was praised by none other than the master of the genre, Plutarch, comparing the great and unalloyed pleasure they provide to that obtained by reading Herodotus or Homer.

We also hear of works entitled *Rules of Education* (in at least ten books), *Political Laws* (in at least eight books), *Mantinean Character*, and (if different from the last) *Praise of Mantineans*. Most of these fragments have nothing to do with music: they discuss the difference between two words having to do with shame, the fact that one educates one's son best by making him a citizen of a well-governed cit, that Lycurgus died in Crete; but even here (in *Political Laws*), Aristoxenus has something to say about the composition of pseudo-Epicharmic verses by Chrysogonus the *aulos* player.

Aristoxenus truly deserves his title of *musicus*, then. In addition to some of the pertinent works named above, we hear of and learn a little about the following: *On Music, Course on Music* (these may be two titles for the same work), *On Music in Lyric Poetry*, and *Praxidamantea* (presumable on the views of the musical theorist Praxidamas). Significant portions, however, are extant of works entitled *Elementa Rhythmica* and *Elementa Harmonica* (in three books), although the latter seems rather to be selections from two distinct works. These actual words of Aristoxenus can be further supplemented by passages in later writers who drew freely from Aristoxenus: Porphyry, Michael Psellos, and two anonymous works.

Much of these two works is concerned with the technical details of notes, tempi, modes, scales, intervals, etc., but it is plain that Aristoxenus considered himself to be an innovator in the writing of musical theory. Arguing against those who,

although ignorant of the true nature of music, nonetheless denied it any significance, Aristoxenus also distinguished himself from the extreme intellectualism of the Pythagoreans (see above), although he accepted some of their view on the relationship between music and ethical behaviour. He could not, however, bind himself to a rigidly mathematical scheme that failed to take into account the slight but inherent disparities that are as much a part of music as (his example) the deviations from straight lines that woodworkers and other craftsmen in visual arts incorporate into their products. These deviations can be perceived, and then described, only by someone skilled in music.

Later writers on music theory made frequent reference to the theories expounded by Aristoxenus (even when they do not name him), some going so far as to ally themselves specifically with him in opposition to Pythagorean views.

DAVID SIDER

See also **Music**

Biography

Born *c.*370 BC in Taras (now Taranto) the son of a musician, Aristoxenus was taught first by his father, then by Lampros of Erythrae. Probably in Athens he was a pupil of Xenophilus and then joined Aristotle's Lyceum. He wrote copiously – 453 books according to the *Suda* – and mostly on music. He failed to succeed Aristotle as head of the Lyceum. His date of death is unknown.

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See also **Brigandage**

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ARMENIA

In the Classical and Byzantine periods Armenia covered roughly the rugged upland plateau southeast of the Black Sea, south of Iberia (Georgia), and southwest of Caucasian Albania (Azerbaijan) and the Caspian Sea and also the more fertile lands of the upper Tigris valley; but its boundaries fluctuated greatly and it was frequently fragmented. Its early history is largely dependent upon foreign sources since the Armenian alphabet was not devised until *c.*AD 400 (although governmental documents and other texts were written in Iranian in Aramaic characters, Greek or, for some ecclesiastical documents, Syriac), and even for a few centuries after that most native histories were ecclesiastical and with little interest in secular matters.

The origin of the Armenians is mysterious. Although their language is the sole member of an Indo-European subgroup, they were probably of ancient Anatolian stock akin to the Hurrians and entered the failing kingdom of Urartu, with its capital at Van, from the west around 600 BC. The area's subsequent status as a satrapy of the Achaemenid Persian empire earned it brief mention by Herodotus (e.g. 3. 93), but the first substantial documented contact between Armenians and Greeks is given by Xenophon, who led the Greek mercenaries safely home from Mesopotamia through Armenian territory in 401–400 BC (*Anabasis*, 4. 4–5). After his victory at Gaugamela in 331 over Darius III, for whom Armenia had furnished 40,000 infantry and 7000 cavalry, Alexander appointed Mithranes, the turncoat son of the last Persian satrap, as its governor. Although the Seleucids never exerted direct control over the principalities of a usually fragmented Armenia, Greek influence grew rapidly and can be seen most vividly today in seven inscriptions cut into a rockface at Armavir in the Araxes valley around 200 BC, one of which refers to Hesiod while another is a compilation of extracts from Greek dramas. Seleucid overlordship ended when Antiochus III was defeated at Magnesia in 190 BC by the Romans, who allowed his two Armenian satraps Artashes (Artaxias) and Zareh (Zariadris) to establish themselves as kings of Greater Armenia and Tsophk (Sophene) respectively.

Greek acculturation increased, notably in the 1st century BC during the reign of Tigran II who, before being forced in 66 BC to cede many of his conquests and accept Roman suzerainty, briefly, in alliance with his father-in-law Mithridates VI Eupator of Pontus and chiefly at the expense of Parthia, made Armenia an important empire stretching from the Caspian to the Mediterranean. He built in the Hellenistic style his new capital Tigranakert (Tigranocerta, possibly the later Byzantine Martyropolis), to which he removed many thousands of Greeks. His philhellene inclinations continued under his son Artavazd II, who maintained a theatre and is reputed to have himself written tragedies and other forms of literature in Greek. For much of the Roman period Armenia was a buffer state (and often the site of warfare) between the Roman and the Parthian or, later, the Sassanian empire, although the Romans did annex

a small portion west of the Euphrates (Armenia Minor) and briefly under Trajan the whole area (Greater Armenia). Latin, however, made no headway and the elite continued to use Greek (and Iranian) in addition to their native tongue. The correspondence of Libanius, the celebrated rhetorician of Antioch in the 4th century AD, indicates that he taught at least 20 Armenian students. Owing to the swift and thorough conversion of the Armenians to Christianity (which became the official religion in 314) by the Parthian missionary Gregory the Illuminator, little Graeco-Armenian art survives and, owing to their scrupulous adherence to the commandment prohibiting the making of graven images, almost no sculpture. The sole surviving temple is a magnificent grey basalt peripteral Ionic structure erected by the Arsacid Trdat (Tiridates) I in the second half of the 1st century AD and preserved only through its conversion into a royal summer residence (though ruined by an earthquake in 1679 it has been reerected). Once housing a statue of Mithras, it still displays a luxuriantly carved frieze of Armenian and Hellenistic motifs. In the neighbouring Roman bath-house a mythological mosaic of Ocean and Sea offers the curious Greek inscription "we worked without reward".

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See also **Cilicia**

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ARMY

Armies and war making were the focus of one of the landmarks of early Greek culture, Homer's *Iliad*. The epic poems of the 8th century BC looked back to the battles and warriors of the Bronze Age, so vividly depicted in the *Iliad*, with awe and fascination. War making played a key role in the Mycenaean heroic age and its aftermath, after 1100 BC, when the Dorians, Iron Age warriors who invaded and eventually settled in Greece, changed the political and social landscape. The dearth of historical and archaeological information on the post-Mycenaean years, the so-called Greek Dark Age between 1100 BC and 800 BC, makes it difficult to ascertain the exact causes and consequences of the decline of the Mycenaeans. It appears, however, that the decline of Mycenae had begun before the advent of the Dorians. It appears also that a series of invasions by the armies of the migrating Sea Peoples (who overran the Hittite empire, and sought to conquer Egypt, and one of whose tribes, the Philistines, settled in Palestine) were among the factors leading to the general exhaustion that marked the Mycenaean world even before 1100 BC. After 1000 BC Greek society was reduced to small local communities, from which there gradually emerged the city state (polis).

Military conflict between the city states of mainland Greece was not rare even at a later period, between the 8th century BC and the beginning of the Persian Wars in the early 5th century BC. Yet, with the exception of Sparta, the city states sought to avoid the maintenance of a standing army. By the time of the first Persian War (490 BC) most city states used cavalry, but its extensive use was confined to the Thessalian League. For the rest, their military strength was represented by the organization of the infantry. The hoplites, the armed citizen-soldiers, fought on foot and were organized in companies (*lochoi*) and platoons (*enomotiai*). In the ten years between the first and the second Persian War (480–479 BC), Athens concentrated on strengthening its sea power by building a large trireme fleet. After the Persians' devastating defeat in 479 BC, which ended the Persian threat to the Greek world, Athenian hegemony was established gradually in mainland Greece and, with the help of the Delian League, throughout the Aegean, from Thasos to Rhodes.

Armies in Classical antiquity represented the organized mobilization of citizenry in case of war. Therefore, while military conflict was not uncommon, it implied the temporary militarization of life – again with the exception of Sparta, the only city state in which a militaristic structure and way of life defined all other social and political activity. In Athens the relaxed quality of civic life in the polis during the Periclean age is contrasted by Thucydides to the poisonous atmosphere brought about through war, militarization, and the suspension of many

features of the Athenian democracy. The Peloponnesian Wars (460–445, 431–404 BC), caused by a complex series of perceived threats and counter-threats, manifested the consequences of the imperial expansionism of the Athenian League and the commitment by Sparta and the Peloponnesian League to total victory and the destruction of the power of Athens. In particular the second, so-called Great, Peloponnesian War displayed a succession of intense clashes and a relentless crusade towards total supremacy. It was the dominance of that mentality in both camps that explains the Sicilian expedition in the final years of the war, a colossal undertaking by Athens aimed at conquering Sparta's allies in Sicily. The defeat of Athens left Sparta in the position of a dominant player. But the inward-looking character of the Spartan regime, combined with the fragmentation of the Greek city states and the efforts by the Persians to influence political developments in Athens and elsewhere, resulted in political complications which moderated the significance of the Spartan victory.

The rise of Macedon in the 4th century BC, which soon put an end to Spartan supremacy, owed much to the military innovations introduced and perfected by Philip and his son Alexander the Great. These were the development of siege weaponry to obviate the need for lengthy blockades, and the perfection of infantry/cavalry tactics based on new models for the organization of the deep phalanx, which enabled complex manoeuvres and combined infantry/cavalry deployment (Connolly, 1977 and Humble, 1980). In the invasion of Asia Alexander led an army in which not only Macedonians but all Greeks participated, with the exception of the Spartans. After Alexander's death (323 BC) the Macedonian empire suffered the wars of the generals, which introduced the war elephant to the battlefield. The fragmentation of the Hellenistic world, the result of intense conflict between Alexander's successors, prepared the ground for the gradual absorption of large segments of that world into the emerging Roman empire.

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See also **Warfare**

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ARRIAN *c.*AD 90–160

Historian

In his preface to the *Anabasis of Alexander* Arrian declares that wherever Ptolemy and Aristobulus, the Alexander historians, "have both given the same accounts of Alexander the son of Philip, it is my practice to record what they say as completely true, but when they differ, to select the version I regard as more trustworthy and also more telling". He has chosen these two authors because both of them took part in Alexander's expedition and both wrote after his death, thus not being "under any constraint or hope of gain", particularly Ptolemy, who became king. Other accounts Arrian intends to record only as "tales" told of Alexander (Praefatio, 1–3). In this unique statement on principles of selection and use of sources Arrian sweepingly disqualifies the bulk of his predecessors, including Callisthenes (mentioned only as a historical figure in the *Anabasis of Alexander*), Clitarchus, Diodorus, and Plutarch, names that never appear in Arrian's extant works. In the so-called "second preface" to the same *Anabasis* Arrian even boasts that before him Alexander's exploits were never properly recorded, and that he, at last, "will make Alexander's deeds known to men" (1. 12. 2–5). He also displays a similar attitude elsewhere. In the *Indica* (2. 9) he singles out Eratosthenes as "more trustworthy than any other writer", and Nearchus and Megasthenes since both are "remarkable men" (17. 6); in the opening chapter of the *Tactica* he enumerates tactical writers, including Pyrrhus, Polybius, and Posidonius, only to declare them all useless.

Predecessors and sources are not necessarily models. Arrian's ideal was Xenophon – his career as a soldier and, later in life, as a retired gentleman-writer (*Cynegeticus*, 1). He called himself "Xenophon", and was nicknamed the "new Xenophon" by later biographers. Arrian was indeed as prolific and versatile a writer as Xenophon. Like Xenophon, who started his intellectual career as a disciple of Socrates, Arrian began his as a disciple of Epictetus, turning thereafter to other subjects. Yet, he did not write contemporary history as Xenophon had done. All his historical work bears upon the past: the *Antiquities of Bithynia*, the monographs on Dion and Timoleon, the *Anabasis of Alexander*, the *Events after Alexander*. Actually, he must have had more than one model. Herodotus, for example, is quoted and used several times. Arrian's works bristle with Herodotean reminiscences in content, in vocabulary, and in style. In true Herodotean fashion he reports versions that he does not credit, has reservations about his sources, and leaves it to others to judge or explain. In the *Indica* he even adopts the Ionic style. Sometimes he feels compelled to find a compromise between Herodotus and his avowed model Xenophon. A case in point is his belief in the existence of Amazons in mythical times, as attested by Herodotus and by Athenian funeral orators, while disbelieving their survival in historical times, as Xenophon's silence would suggest (*Anabasis*, 7. 13. 5–6). Arrian's debt to Thucydides and Theopompus (never mentioned by name) should perhaps remain a matter of speculation, but the influence of Atthidography on his local chronicle of Bithynia (*Bithyniaca*) is quite evident. His presumably continuous survey of Bithynian antiquities from mythical times to 74 BC, as well as his self-identification as a priest of Demeter and Core, the tutelary goddesses of Nicomedia, echo a topos already exploited by Cleidemus and Philochorus in the 4th century BC.

Having predecessors, and even being influenced by them, does not necessarily imply slavish imitation. Arrian read and absorbed his sources, but though sometimes he followed them passively, he developed a style of his own. His historical work is a mixture of the "pragmatic" school of Thucydides, Xenophon, and Polybius, and of the encomiastic trend of Alexander-historians such as Callisthenes and the "vulgate" tradition. And, of course, Arrian was a child of his times. The

very project of compiling a laudatory monograph on Alexander cannot be dissociated from the impact of the Parthian wars of Trajan on Greek intellectuals, or from the reminiscences and propaganda about the Persian wars emanating in the 2nd century from Hadrian's Panhellenion in Athens.

Arrian's reputation among his younger contemporaries and later, as having an exemplary career as a philosopher, a historian, or a master of style, is well attested. For Lucian, Arrian was "a disciple of Epictetus, a Roman of the highest distinction, and a life-long devotee of letters", a man who did not disdain writing the life even of the brigand Tilliborus (a work otherwise unknown). Aulus Gellius was acquainted with Arrian's edition of Epictetus' *Discourses*. Cassius Dio wrote a "Life of Arrian the Philosopher" (not extant) and in his *Roman History* he mentioned Arrian's role in the war against the Alani. Dexippus apparently used and followed closely Arrian's history of the Diadochi without mentioning his name. In the 4th century AD Eusebius put Arrian's *floruit* in AD 149/50 and Themistius pronounced him a famous example of a philosopher engaged in public life. In the 5th century Malalas called Arrian a "most wise chronographer" and used his *Parthica* for Trajan's wars. His contemporary Johannes Lydus quoted him on the antiquities of the Parthians. Procopius quotes him on Kytaia, the Colchian city of Medea, and the Neoplatonist Simplicius mentions a *Life of Epictetus* written by Arrian. In the 6th century Stephanus of Byzantium used Arrian extensively, consulting particularly the *Bithyniaca* and the *Parthica* for his own purposes and quoting verbatim several passages.

Photios's encomium of Arrian, appended to the epitome of the *Events after Alexander*, is one of the longest in the *Bibliotheca*. To Photios, Arrian was "inferior to no one of the best writers of history", a true imitator of Xenophon, a writer worthy of praise for his clarity, composition, and style, as well as for his lack of out-of-place digressions and parentheses, and for his traditional choice of words. Photios abridged Arrian's historical works and knew of his edition of Epictetus' teachings. Arrian's reputation for composition is also attested in Byzantine times by the anonymous author of a treatise *On Syntax*.

The *Suda* lexicon has an entry on Arrian and refers to him repeatedly, particularly to the *Parthica*, from which many substantial passages are quoted. A 10th-century collection of *excerpta* includes passages from Arrian's *Anabasis of Alexander*, and a passage from this same work on the statues of Harmodius and Aristogiton at Athens is quoted in the scholia to Proclus' commentary on Plato's *Timaeus*. In the 12th century Tzetzes and the *Etymologicum Magnum* used Arrian's *Bithyniaca*, and Eustathios drew heavily on both the *Bithyniaca* and the *Anabasis of Alexander* for his commentaries on Homer and Dionysius Periegetes, preserving sizeable passages quoted verbatim. Finally, around 1200 the Codex Vindobonensis (Vienna, Nationalbibliothek, hist. gr. 4) was copied, from which all the extant manuscripts of the *Anabasis of Alexander* are descended.

DAVID ASHERI

Biography

Born in Nicomedia in Bithynia *c.*AD 90, Arrian studied under the Stoic Epictetus before moving to Greece (108–12) and a career in the civil service under Hadrian. He served as legate of Cappadocia (131–37) and then retired to Athens where he died *c.*160. Arrian wrote on a wide range of subjects including geography, hunting, military tactics, and local history, but is best known for his *Anabasis*, a history of the campaigns of Alexander the Great.

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ARTA

Town in Epirus

The town of Arta lies some 14 km north of the Ambracian Gulf, in a bend of the Arachthus river where it winds down from the Xerovouni mountains to the west coast of Greece. It has always been the principal coastal town of the district of Epirus, and was known in antiquity as Ambracia. Its situation close to the estuary of the Arachthus allowed its inhabitants to reap the agricultural benefits of the flat, fertile, and well-watered surrounding land.

The area was first colonized by Corinth in the late 7th century BC, and a century later had become fully established. Pyrrhus, the king of Epirus, the son of Aeacides and Phthia, consolidated his position by settling there in 295 BC, and was the first ruler to make the town into a substantial capital, erecting many public buildings and sculptures. These were largely removed by the Romans when they took the town in 189 BC, and the inhabitants were moved to populate the new city of Nicopolis.

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See also **Epirus**

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ASTROLOGY

Astrology is a pseudoscience that uses astronomical phenomena to make mundane predictions. Its origins lie in Mesopotamian astral, planetary, and meteorological omens, which were being catalogued already in the 2nd millennium BC in the cuneiform text *Enu–ma Anu Enlil* (much of its material is to be found in later Greek manuals such as those of Ptolemy, Hephaestion of Thebes, and John the Lydian in the 2nd, 5th, and 6th centuries AD respectively). Although it was not at first true astrology, in so far as there was no suggested relationship of cause and effect, increasingly exact astronomical observations from the 7th century BC encouraged the Babylonians to extend their science to making predictions for individual humans. By the late 5th century this Babylonian protoastrology had penetrated a Greek world made receptive through its divinization of celestial bodies. Greeks are responsible for its complex developments made chiefly in the period *c.*300 BC–*c.*AD 300.

Astrology is dependent upon a belief in sympathetic magic, which postulates a link between the macrocosm (universe) and the microcosm (man). It is based upon the supposed characteristics and associations with mundane phenomena of the seven "planets" (Sun, Moon, Saturn, Jupiter, Mars, Venus, and Mercury) and the twelve constellations of the zodiac, the latter being groupings as seen from earth of unrelated stars in a moving band eight or nine degrees each side of the ecliptic (the apparent course of the sun's annual orbit). The attribution of characteristics and associations to celestial bodies has on rare occasions a vestige of reason: thus Saturn, whose orbit is furthest from the sun of the planets known to the ancient world, was considered cold and malign, the cause of freezing weather, pestilences, and scarcity, and in man of dysentery, colic, the bringing up of phlegm, elephantiasis, etc. More typically, however, his lordship over the right ear (like Mercury's over the buttocks) appears quite arbitrary. Other associations depend upon contemporary theories: for instance, Pythagorean mathematics, by classifying all even numbers as female, dictates that Taurus (the Bull), since it is the second sign of the zodiac, should be female.

The "planets" were seen as moving anticlockwise at various speeds against the zodiacal circle, which itself revolved clockwise against an envisaged stationary circle whose four cardinal points were those of the risings and settings on the horizon of the ecliptic and the zenith and the nadir. This second circle was divided into usually 12 segments or "places" (today commonly "houses"). The degree of influence on mundane phenomena of each celestial body was believed dependent upon its position in respect to other bodies (its "aspects") and its "place", but there were so many calculations of often contradictory evidence that failure of predictions could easily be explained away. This was even more possible with the addition of the *dodecatemoria*, the division of each sign of the zodiac into 12 equal parts of two and a half degrees, each assigned to one of the 12 signs of the zodiac and thus allowing a "planet" to be in, say, the *dodecatamorion* of Scorpio in the sign of Gemini. All astrologers tended to base their predictions upon tables rather than observation, despite the accurately calculated discovery by Hipparchus in the late 2nd century BC of the precession of the equinox (the retrograde movement of the equinoctial points along the ecliptic), and thus continued to work on the assumption that the vernal equinox occurred at the first point of Aries rather than at some point in Pisces.

Believers were divided into those who, through acceptance of a purely mechanistic universe, held that the celestial bodies dictated an ineluctable fate and those who believed that astrology merely gave clues to personalities and trends and whose role was therefore that of a guide. The commonest application of astrology was for genethlialogy in which predictions were made about an individual on the basis of celestial positions at the hour of his birth or, far less commonly and of course less accurately calculated, his conception. These predictions could be updated by anniversary horoscopes. Large numbers of often astronomically impossible horoscopes have survived on papyrus, while there is one more "scientifically" reputable ancient collection from *c.*AD 130 in the *Anthologies* of the Antiochian Vettius Valens. Catarchic astrology determined the most favourable moments for commencing various enterprises such as journeys and military campaigns. Largely a subdivision of this was iatromathematics which dictated when certain herbs should be picked for greatest efficacy, predicted the course of illnesses, and gave clues as to treatment. Interrogational astronomy was dependent upon the positions of the celestial bodies at the time of the question.

Philosophical underpinnings to Greek astrology gave it respectability. Thus even the supremely competent astronomer Claudius Ptolemy in the 2nd century AD accepted and, indeed, even wrote a textbook (*Apotelesmatika* or *Tetrabiblos*, Astrology or the Fourfold Book) on the subject. Opposition was largely aimed at quack practitioners and those who threatened the stability of the state by making public predictions of the death of its ruler. Stoics, with the notable exception of Panaetius, were particularly drawn to astrology by their belief in cosmic sympathy, and in the early 1st century AD Manilius wrote a didactic poem (in Latin) on the subject. Epicureans and Cynics, however, scoffed at it. The most detailed surviving refutations are those of the Sceptic Sextus Empiricus in the 2nd century AD and of Plotinus and Origen in the 3rd century AD. Since astrology offended the concept of man's free will, Christian opposition was at times virulent but could not entirely extirpate it owing to belief in the "star" that led the Magi to Bethlehem. The 4th-century Priscillianist heretics in Spain even went so far as to hold that God used the celestial bodies to make manifest his will.

Hellenistic astrology passed through Sanskrit translations (most notably the *Yavanatjataka*, Sphujidhvaja's versification of Yavaneśvara's translation of AD 149/50) to India, where it was modified to accommodate local beliefs. Sassanian Iran learned its astrology from both Greek and Indian sources and, before it passed it on to the Islamic world, added another type, the political, wherein predictions were made for whole nations.

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See also **Fate**

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ASTRONOMY

Greek astronomy can be defined as the astronomy of epicycles, an invention of the 3rd century BC. To arrive at this solution for planetary movements, the astronomers of the 3rd century had behind them three centuries of observations and mathematical theories.

Little is known about the mathematical astronomy of the Presocratics. Thales of Miletus (7th–6th century BC) is considered to be the first Greek astronomer. He predicted solar eclipses by studying their periodic recurrences, but with an important factor of error. Anaximander (6th century BC) observed the inclination of the ecliptic. Pythagoras (6th–5th century BC) found the "right" (in the geocentric system) order of the planets (Earth, Moon, Mercury, Venus, Sun, Mars, Jupiter, Saturn, while Aristotle later placed the Sun between the Moon and Mercury). A little more is known about the contemporary of Socrates, Meton, who, observing from the hill of Pnyx about 432 BC, defined the solar–lunar cycle of 19 years.

The observational data (especially those concerning the retrograde planetary motions and Sun and Moon anomalies) were important enough in Plato's time for him to pose the problem of "saving the phenomena" (interpreting celestial bodies' motions by circular orbits with uniform speed). According to Simplicius (6th century AD), it was Eudoxus who produced that system, composed of homocentric spheres. The combination of two spheres rotating with unchanging velocities can effectively represent the retrograde planetary motions. For the motion of the Sun he employed three spheres (one to account for an observation known to have been mistaken), and another three for the Moon.

Eudoxus' system only partially saved the phenomena: in particular it did not take into account the variations in the distance of the heavenly bodies (the variation in the apparent diameter of the Sun or in the brilliance of the planets). This problem was posed during the 3rd century BC. The heliocentric system proposed by Aristarchus of Samos (4th–3rd century) was an adequate response to that problem but, probably for philosophical reasons, it was not followed by the main Greek astronomers. According to a later source, Theon of Smyrna (2nd century AD), a system had been proposed during the 3rd century BC similar to that imagined 19 centuries later by Tycho Brahe. In that system the two "inner" planets, Mercury and Venus, orbit the Sun, while the latter orbits the earth, the centre of the universe. This system resolved far better than that of Eudoxus the motion of Mercury and Venus; it is highly probable that it is the origin of the astronomy of epicycles. Indeed, if the orbit of the Sun is replaced by the deferent cycle of Mercury and Venus, the solution attributed to Apollonius of Perge (born *c.*244 BC) is reached.

In an effort to respond to the solar anomaly, while respecting the principle of circular uniform motion, 3rd-century Greek astronomers proposed the "eccentric" solution: the Sun travels on an eccentric circle (centred on a point that does not correspond to the earth's centre). This system presented two difficulties: it was not symmetrical and it was contradictory to Aristotelian physics, which could not accept a motion around an imaginary point. It was probably Apollonius who resolved the problem of symmetry, by demonstrating the equivalence of an eccentric to an epicycle travelling around a concentric (deferent circle), while the "Aristotelian" problem has never been resolved. This epicycle plus deferent solution was to characterize all the astronomical systems until the beginning of the 17th century, when Kepler formulated his first planetary law, that of the elliptical orbits.

Between Apollonius and Hipparchus (who was observing at Rhodes *c.*128 BC), Greek astronomers had developed a complete epicycle plus deferent astronomical theory. By combining the radius and the motions (clockwise or anticlockwise), these astronomers could reproduce the retrograde motion of the planets (but not the fact that the "loops" produced by this motion were not symmetrical) and represent approximately the Sun's and the Moon's motion.

By reversing the "methodological" approach of astronomy, Hipparchus played a decisive role in the development of Greek astronomy. According to available information, which comes mainly from Ptolemy, Hipparchus was the first to give priority to the collection of observations in order to find the empirical laws of the motion. After that, he tried to solve the problem by circular uniform movements. Hipparchus tried to determine the radii of the deferents and the epicycles of the planets and computed a successful theory for the motion of the Sun. He also showed how to calculate the Moon's motion; his work was masterfully completed by Ptolemy.

As for the Sun, Hipparchus determined its eccentricity, resolving thus its principal anomaly, that of the inequality of the seasons' length. It was probably while working on the theory of the Sun that he made his main discovery, that of the precession of the equinoxes. By comparing historical observations, Hipparchus remarked that, in its annual movement, it took the Sun a little more time to reach the same zodiacal point than to reach the equator: the sidereal year would then be different from the solar year. This phenomenon, due to the spinning-top movement of the axis of the earth, was interpreted by Hipparchus as a very slow movement of the sphere of the stars, from west to east (about 1 degree per century, while the true value is 1 degree, 23 minutes, 30 seconds).

As for the Moon, the problem was much more complicated, as the motion of the earth's satellite presents six main anomalies. Although Hipparchus knew only one, he did not succeed in resolving it, but he posed the problem of the parallaxis relating to solar and lunar observations: he said that astronomers must consider the earth as a point only with respect to the fixed stars. He also tried to determine the dimensions and the distances of the heavenly bodies.

The apex of Greek astronomy was the magisterial work of Claudius Ptolemy. His book, the *Great Mathematical Syntaxis of Astronomy*, known as the *Almagest*, finished between AD 142 and 146, included all the astronomical phenomena known at that time. This book constituted a unique advance in the history of science: it was to be the main reference for all astronomers until the work of Tycho Brahe and Kepler, almost 1500 years later. Indeed, all Greek, Islamic, or Roman planetary astronomy until Kepler can be characterized as Ptolemaic.

Ptolemy continued and concluded Hipparchus' work. His method was similar: to collect as many observations as possible; to show up the anomalies of the planetary motions; to find the empirical laws for these anomalies; to combine various circular uniform movements in order to save the phenomena; to choose the most adequate among the different solutions, and determine the radii and the positions of the circles and the angular speeds; to compute the planetary tables. The coincidence of forecast with observation confirmed the theory.

The main celestial movements according to Ptolemy were the following two: (a) the diurnal motion of the sky from east to west; (b) all other motions, which mainly took place from west to east and close to the ecliptic. Whenever Ptolemy was able to choose from among many solutions, he preferred the simplest. He adopted Hipparchus' solution for the Sun, but for reasons of simplicity he chose the eccentric from the deferent plus epicycle. For all the other heavenly bodies he presented his own solution, which in the case of Venus, Mars, Jupiter, and Saturn involved the famous "equant" (it was given this name during the Middle Ages): the centre of the epicycle does not move with a uniform motion; the circular uniform motion is "transferred" to a point of another circle (the equant). As a consequence, the phenomena were saved (the planets travel faster at their perigee and more slowly at their apogee), but this represented a serious departure from Aristotelian physics and from the principle of uniform circular motion posed by Ptolemy himself. The system was also extremely complicated: Ptolemy even added circles to move the level of the epicycle from that of the deferent!

Ptolemy presented his cosmological speculations (the mechanisms responsible for all the motions of the heavenly bodies) in his book *Planetary Hypotheses*. This work was the precursor of Islamic astronomical theories on the mechanisms of the celestial spheres. Another astronomical work of Ptolemy, the *Handy Tables*, a revised version of the *Almagest*, remained in use throughout the Middle Ages.

The main Greek commentator on Ptolemy was Theon of Alexandria (4th century AD). His commentary on the *Almagest* and two commentaries on the *Handy Tables* were the last important works of ancient Greek astronomy.

EFTHYMIOS NICOLAIDIS

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ATHEISM

Atheism conventionally refers to a system of belief that denies the existence of a personal divinity. Taken in this sense, it is of fairly recent coinage in Greek intellectual history. In a broader sense, however, atheism, taken to refer to godlessness

or, polemically, to the rejection of particular religious beliefs, has a better-documented pedigree.

Atheos is the Greek for "atheist". This is etymologically an adjective of broad application designating most frequently godlessness or the denial of a particular set of divinities. Thus, for example, in the *Eumenides* by the Athenian playwright Aeschylus, Orestes is called *atheos* because contrary to religious convention he had murdered his mother Clytemnestra, although his conversations with Apollo necessitate his belief in the existence of gods. Likewise, in *Oedipus the King* by Sophocles, the chorus protests its loyalty to Oedipus by wishing to be abandoned by friends (*aphilos*) and gods (*atheos*) alike if it wishes any ill towards him.

The number of known atheists in antiquity is very small. Though the historical record is somewhat fragmentary in most instances, during the latter part of the 5th century BC Athens witnessed a small number of piety trials directed against natural philosophers, who were commonly perceived as atheists. These early scientists became objects of legal persecution largely because of their attempts to substitute natural causality for divine intervention. Diagoras of Melos is traditionally known as "the atheist" although the evidence indicates that he did not reject the existence of all gods. Anaxagoras was more clearly atheistic in his outlook since he specifically rejected the divine nature of the sun by referring to it as a piece of "hot stone". Protagoras held a more ambivalent position by proclaiming his uncertainty one way or the other as to the existence of the gods. Most famously, Socrates was tried and executed in 399 BC because he allegedly rejected the state divinities, introduced new gods, and corrupted the youth. The truth of these charges is unknowable, but three aspects of the case are significant. First, Socrates was represented in the *Clouds*, a comic play by Aristophanes, as rejecting the gods in favour of apotheosized natural mechanisms. Second, in Plato's *Apology*, a fictitious representation of his defence speech, Socrates specifically denies the charge of atheism, thereby demonstrating his vulnerability on that very point. Third, he is represented by the relevant witnesses as possessing a personal oracle, known as the *dacmonion*, and observing the religious customs of his day, thus leaving him vulnerable to the charge of introducing new gods. Obviously, the atheism of Socrates was not the religious nihilism of the modern era.

Subsequent to Socrates, it is possible to speak of atheistic beliefs within a broader Graeco-Roman context. The Epicurean school of philosophy with its strict materialism and denial of divine intervention in human affairs is chiefly associated with these ideas. The Roman poet Lucretius, writing in the 1st century BC, aimed to popularize this particular outlook with his epic poem *On the Nature of Things*, a spirited challenge to the religious beliefs of his day. Plutarch, who lived during the last half of the 1st century and first half of the 2nd century AD, in his book *On Superstition*, gives atheism a very modern sense, saying that it is a denial of the existence of gods, but adds that it results from spurious reasoning. Doubtless the agnosticism of Marcus Aurelius, the Stoic emperor who reigned AD 161–80, easily falls within the bounds of ancient atheism, Lucian, a contemporary of Marcus Aurelius, describes in his *Icaromenippus* several schools of thought about the nature of the divine, some of which are atheistic, whether in the ancient or the modern sense.

Christians, because they rejected the religious norms of their contemporaries and refused to yield in their monotheistic views, were regularly persecuted for their atheism. Lucian relates how Alexander of Abunoteichos, a spiritual mountebank, incited his followers to stone the Christians because they were blaspheming atheists. For their part, Christians enthusiastically labelled non-Christians and various sectarians as atheists. For example, in his Letter to the Ephesians Paul says that before the coming of Christ the gentiles were "without hope and atheists". According to Clement of Alexandria in his *Exhortation to the Greeks*, Diagoras and others who were in his view rightly sceptical about traditional Greek religion were not atheists; rather the true atheists were those who upheld pagan religious norms. The Christian apologist Athanasius refers to those who do not share his views on the relationship between Jesus Christ and God as atheists and non-believers. Polemical allegations of atheism aside, it appears that no evidence for intellectual atheism during the late antique period survives. As one writer has noted of this time, "sceptics and rationalists, if they existed, have left no mark on history and literature" (Jones, 1964, vol. 2, p.957).

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ATHENAEUS

Prose writer of the 2nd century AD

Athenaeus was born in Naucratis, a Greek community in Egypt, around AD 150. He was prominent among the Greek scholars of the so-called Second Sophistic, and but one of

several produced by Naucratis. These scholars, Athenaeus included, were concerned with the revival of Classical Greek culture in the context of Roman imperial rule. Athenaeus spent time in Rome in the patronage of P. Livius Larensis, a cultured Roman bibliophile with a strong interest in Hellenism. However, there is no evidence for the frequent assertion that he belonged to the circle of Julia Domna, the wife of the Roman emperor Septimius Severus.

His principal work was his *Deipnosophistae*, (Sophists at Dinner). It is divided into 15 books (not 30, as sometimes claimed), of which the opening and closing books are fragmentary: for these, we depend largely upon an epitome. The *Deipnosophistae* forms part of a long Hellenic tradition of sympotic literature, a direct descendant of Plato's *Symposium*, Xenophon's *Symposium*, Plutarch's *Sympotic Questions*, and Lucian's *Symposium*, among other texts. However, it is far longer than these predecessors. The diners, 24 in total with the host Larensis included, discuss both the dinner itself and a bevy of issues that arise from particular dishes or circumstances – cooks (Greek and non-Greek), extraordinary concoctions, outstanding banquets, dances, music, musical instruments, furniture, wines, health, cultivated fruits, gluttony, austerity, luxury, scholarship, and humour.

Each diner receives his own characterization, but some are more strongly drawn than others. They include Ulpianus of Tyre, committed to the purity of Attic Greek and always concerned to raise a pedantic point of grammar (and probably not to be identified with Ulpian the jurist); Kynoulkus, a Cynic who takes pleasure in goading the irascible Ulpian; Galen the physician; Masourius, with pretensions to musical expertise; Ploutarchus, a grammarian; and Myrtilus with his taste for proverbs. How far these characters are real people in Larensis' circle remains a matter of doubt: Athenaeus has been suspected of sly humour in his construction and naming of the diners. Certainly, humour is a pervasive feature of the *Deipnosophistae*, both in the interaction of characters and in the dubious and often overblown learning in which the diners compete. The *Deipnosophistae* is best read as a work of both philosophy and satire, appropriately enough in the sympotic tradition.

Athenaeus' work has most often been used as a source for earlier Greek dining or for lost texts, which are quoted very extensively throughout. Its thematic division (e.g. book 7 on fish; book 13 on courtesans) encourages the former approach, while the sheer density of quotation makes the latter inevitable. In accordance with the humorous tone of the work, quotations from Greek comedy are particularly frequent and constitute an enormous part of our knowledge of the genre. Athenaeus' quotations are drawn from some 1250 authors: they include the titles of some 1000 plays and run to some 10,000 lines of verse. The combination of verse quotation and prose text indicates Athenaeus' debt to the genre of Menippean satire.

However, Athenaeus also quotes heavily from prose works, as well as from verse. For example, the historian Callixinus' lengthy account of the grand procession of Ptolemy II Philadelphus is preserved in the *Deipnosophistae*. Athenaeus displays through his characters a historical sensibility far beyond that of an antiquarian. In particular, although his work focuses especially upon Greek culture in its broadest sense, there is also a recurrent concern with the contemporary historical situation, with Rome and its emperors (8. 361f on Hadrian; 12. 537f on Commodus). Moreover, the most recent scholarship encourages the suspicion that Athenaeus not only preserved quotations, but also inserted his own additions and emendations: in any event, it is often difficult to be sure where quotation ends and Athenaeus' own writing begins. There is also an uncomfortable inconsistency in the details of the setting: the first ten books seem to relate to a single banquet, books 11–14 indicate a second gathering, while the final book 15 contains a third session, the whole covering three successive days, it seems. The dramatic context has been taken to range inconsistently between January (9. 372b), April (8. 361f), and August (3. 99e), whether by authorial error or in consequence of the manuscript tradition. However, although January and August are mentioned in the text, it is only 21 April (the ritual "birthday" of Rome) that is clearly given as the time of the dinner(s).

Athenaeus mentions two further works of his own in the course of the *Deipnosophistae*. Neither survives, but both represent features of the concerns that he displays in the extant work. One may be regarded as a historical work in view of its title, *On the Kings of Syria* (*Deipnosophistae*, 5. 211a). However, the rulers of Syria, who might include not only the Greek Seleucids but even Semiramis, offered ample scope for a wealth of anecdote, humour, and moralistic philosophizing, so that the work may not have been the solid historical text that has often been imagined. Certainly, the short passage quoted in the *Deipnosophistae* suggests that its tone may not have been so very different from that of the extant work. Athenaeus' other work survives only as a title: it was a treatise on Archippus' comedy *Fishes*, produced after 403 BC (*Deipnosophistae*, 7. 329c). This play seems to have centred upon an imaginary treaty between Athens and the fishes, akin to the central conceit in Aristophanes' *Birds*: as with the birds of the latter, the play no doubt raised numerous issues of the identification, terminology, and qualities of a wide range of fish, a matter of keen interest to the author of the *Deipnosophistae*.

The oldest surviving manuscript of the *Deipnosophistae* is dated to the 10th century AD. The work seems to have been much used in the Middle Ages, at least in epitomized form: for his commentary on the Homeric poems, Eustathios draws from the epitome on some 2000 occasions. At present in Greece the term "Deipnosophist" has been resurrected in a series of articles on taste and aesthetics, which appeared in the newspaper *Kathemirini* intermittently from 1989 to 1991 and which have now been collected and published as a book, of which *Deipnosophist* constitutes both the title and its author's nom de plume. The inspiration of Athenaeus is explicitly acknowledged, but the modern work is not a dialogue and does not seek to reproduce the texture or flavour of its ancient forebear.

DAVID BRAUND

See also **Symposium**

Biography

Born in Naucratis *c.*AD 150, Athenaeus was a leading figure in the movement known as the Second Sophistic. He spent some time in Rome as the guest of P. Livius Larensis. His principal work is an example of sympotic literature, the *Deipnosophistae*, which contains quotations from many other works that are now lost, notably comedy.

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ATHENS

Capital of modern Greece

The modern city of Athens extends across the largest plain of Attica at a distance of 6–7 km from the coast to the south. Apart from this southern edge, which opens to the port of Piraeus and the Saronic Gulf, the city is surrounded by mountains, namely Aigaleo, Penteli, Parnitha, and Hymettos in a clockwise direction.

Archaeological evidence shows that the earliest settlement took place during the late Neolithic period around 4000 BC. The substantial remains of later periods have obscured these prehistoric settlements, but we know that the first nucleus of life in the region developed on the rock of the Acropolis and its cavities, with farms and roughly made huts subsequently spreading to the south. There is evidence of extensive farming, herding, and fishing and of the worship of a goddess of fertility. Subsequently a number of small and independent kingdoms were established around this nucleus, such as those in Kifisia, Brauron, Marathon, and Eleusis; trade links were developed, especially with the Cyclades; arteries to the Peloponnese and mainland Greece to the north were established; and fortifications were built, especially around coastal settlements, but also around the Acropolis in the second half of the 13th century BC. Athens continued to grow amid these independent conglomerations, and by the Late Bronze Age it was undoubtedly considered one of the most prestigious Mycenaean centres, as indicated by wealthy 14th-century BC tombs, the remains of a Mycenaean palace on the Acropolis, and the 13th-century BC fortifications.

It was sometime during the 14th or 13th century BC that all the kingdoms of Attica formed a political union called *Athinai* (in the plural) and centred around the ancient Athini or Kekropia. Even if not entirely peaceful, the unification – widely known as synoecism and assigned to the mythical hero Theseus who thus became the first king of the city state of Athens – was panegyrically celebrated in the Classical period with two major festivals, the Synoecia and the Panathenaea, which took place in the Agora.

The Mycenaean period is inextricably associated with a series of mythical kings, such as Cranaus, Erechtheus, Cecrops, Pandion, Ion, Aegeus, Codrus, and of course Theseus, whose lives nourished the Athenians' collective consciousness in historical times. But the city's prosperity was seriously affected during the collapse of Mycenaean civilization and the Dorian invasion at the end of the 2nd millennium BC. These tumultuous events brought about social changes that eventually led to the abolition of kingship. The Athenians took great pride in the fact that the Dorians never invaded the city, and it is from this period that the myth of autochthony stems. It was also at that time that Athenian refugees moved across to Ionia, in Asia Minor, in what would later be known as the first movement of colonization.

The descent of the Dorians (11th century BC) also marks the beginning of the Geometric period in Greek history, which lasted until the 8th century BC. Even though the period is often called the Dark Age of ancient Greece – mainly because of the general shortage of raw materials, the decline of trade, and the non-existence of writing – Athens steadily increased in size, new settlements were built, and its pottery with the famous geometric designs and the first sketchy outlines of the human body prepared the ground for subsequent artistic achievements.

In the course of the 7th century BC the increasing significance of craftsmanship and handicraft and the revival of trade put under scrutiny the unquestionable hegemony of the aristocracy of titles and land. There is evidence of a failed attempt of Cylon in 636 BC to exploit this general dissatisfaction in order to become a tyrant. Amid continuing struggle Draco codified the hitherto unwritten – mainly criminal – body of laws, but the unrest did not subside until Solon, a man trusted by all, reformed the state and the laws in 594 BC. His reforms aimed mainly at including the lowest body of Athenians in political decisions, and they are often now considered as the first step towards the realization of democracy, even if they did not manage to elicit general consent.

Encouraged by their newly established political rights, the farmers and cattle breeders kept pressing for an improvement in their position and in 561 BC one of their most able politicians, Pisistratus, took advantage of their unrest and support to set up a tyranny. In spite of his hegemonic spirit, he gave out agrarian loans, boosted trade with other tyrannical states in the Aegean area, and opened the city up to Ionian philosophical and artistic influences. Ancient sources assign to him the first recording of

the Homeric epics and the establishment in 566 BC of the Panathenaea, a first major instance of collective religious worship. The tyrannical regime became oppressive during the years of Hippias, who was finally chased away in 510 BC. After two years of renewed political struggle Cleisthenes from the aristocratic family of the Alcmaeonidae enlarged the list of Athenian citizens, divided the population into ten tribes of mixed origins, and inaugurated the policy of ostracism – enabling the citizens to demand the removal from the city for ten years of any citizen they deemed too influential. The newly established Athenian democracy provoked Persia by supporting the Ionian Revolt and subsequently successfully resisted the Persian assaults at Marathon (490 BC) and Salamis (480 BC).

A more integrated form of democracy is associated with the rule of Ephialtes (who was assassinated by reactionary aristocrats in 461 BC) and Pericles. But Athens' leading role in Greek politics had been formally acknowledged already from 478 BC with the foundation of the Delian League, which brought all subject allies under Athenian control. Led by able politicians and generals such as Aristides, Cimon, and Pericles himself, Athens prospered for 50 years in political, artistic, philosophical, and financial spheres alike; suffice it here to remind ourselves of the Parthenon, the golden-ivory statue of Athena in it, and Athenian tragedy – all products of that famous *pentekontaetia* (50 years) brought to an end in 431 BC by the eruption of the Peloponnesian War, which was the result of Sparta's growing discontent in the face of an increasing Athenian expansionism in the late 430s BC. Lasting 27 years, the unprecedented cruelty of this conflict with Sparta exhausted the city and at the same time let Persia into Greek internal affairs in 407 BC, when the former stepped into the war on the side of Sparta.

The antagonism between the two principal Greek cities continued over the course of the 4th century BC and Persia was once again called upon during the Corinthian War (395–386 BC), this time on the side of Athens. During the short revival of its independent status in the first half of the 4th century BC, Athens pursued an alliance with rising Thebes and made a series of failed attempts, including a second Athenian League, to restore its imperial role. The cultural life was still flourishing but the political prestige and the finances of the city were in steep decline. The emergence of Philip II of Macedon around the middle of the century and his appeal for a Panhellenic alliance that would campaign against the Persians were met with Athenian distrust and hostility, as Demosthenes' well-known and flagrantly rhetorical speeches against the Macedonian king testify. Athens' military power received a heavy blow from the Macedonian army at Chaeronea in 338 BC, but its leaders in the 330s and 320s BC, notably Eubulus and Lycurgus, carried on with policies of retrenchment that stripped the city of its last opportunities for a viable political role in the new order.

Under Cassander of Macedon, Demetrius of Phaleron ruled peacefully but tyrannically so that the arrival of the Antigonid ruler, Demetrius Poliorcetes in 307 BC was enthusiastically welcomed. In spite of the financial adversities that kept on driving the citizens away (mostly to the Asian courts whose armies employed them as mercenaries), Athens in the Hellenistic period established itself as a centre of culture and philosophy of international status. Epicurean and Stoic schools were now added to the Platonic Academy and the Aristotelian Lyceum, while the theatre and the arts thrived. Roman domination in 146 BC had no effect on Athens' intellectual and cultural prestige, which was to last throughout the years of Roman rule as well as the early Byzantine era up to the 5th century AD. The city enjoyed a new economic boom around 100 BC, related to privileges bestowed upon it by the Romans. But the Athenians' support of Mithridates VI in an effort to regain their freedom was severely punished by Sulla in 86 BC.

From the 50s BC Roman nobles and emperors with philhellenic attitudes – notably Hadrian, Herodes Atticus, and Gaius Antiochus Philopappus – became benefactors of the city. During the 1st century AD the altar to the Unknown God and the first Jewish synagogue were erected. The Gothic descent on Europe had its impact on Athens, which was devastated by an invasion of Heruli in AD 267 and of Alaric in AD 396. The city's demographic and financial decline – which had already started by the end of the Peloponnesian War, when Athens is estimated to have had a population of around 36,000 people – was precipitated after the last destructions. At the same time, Christianity started making inroads. Already in the 3rd century AD celebrated Christian philosophers were teaching in new schools on the outskirts of the city.

EFROSSINI SPENTZOU

See also **Acropolis; Agora; Delian League; Piraeus**

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ATHOS, MOUNT

Principal centre of Orthodox monasticism

Mount Athos is a peninsula in northern Greece, the most easterly of the three claws that Chalcidice extends into the Aegean Sea. From the isthmus in the northwest to the southeast point the distance is about 56 km, while that from coast to coast is rarely more than 8 km. About 6 km south of the isthmus a wall marks the frontier, and beyond it the ground rises steeply to wooded peaks of 500 and 600 m. South of Karyes, the capital, which stands more or less in the centre of the peninsula, the woods turn to scrub and eventually to bare rock as the contours rise, peaking finally at 2030 m before a sudden drop down to the sea. For more than a thousand years Athos has been the exclusive preserve of Orthodox monks; to this day it remains the principal centre of monasticism for all the Eastern Orthodox Churches. It is dedicated to the glorification of the Virgin Mary (or Theotokos), whose garden by tradition it is. She alone is held to represent her sex there, which is why Athos is closed to women.

In antiquity Athos was already a holy mountain, its peak being sacred to Zeus. In 492 BC the Persian fleet of Mardonius was dashed to pieces on the rocks at the southern point; mindful of this, the next time the Persians invaded Macedonia by sea, in 480 BC, they cut a canal through the isthmus to ensure the safe passage of their ships. Several cities were founded on the peninsula, and in the 4th century BC there was even a bizarre proposal to carve the mountain itself into the image of Alexander the Great; but the king told his architect to concentrate rather on designing the new city of Alexandria, and by the early centuries AD it seems that the place was deserted.

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ATOMISM

One of the greatest contributions of ancient Greek philosophical *logos* to world civilization was the expression of a series of theories on the beginnings and structure of matter. Some were simple; others were more complex. Regardless of whether or not they were correct, they were a significant source of ideas and rationales that eventually played a role in the formation of modern scientific thought, even if they were incomprehensible to some.

The so-called atomic theory played a leading role. It consisted of a characteristic central idea that rejected the notion of an infinite divisibility of matter, as opposed to Aristotelian philosophy. The founder of the ancient theory of atomism is supposed to have been Mochus or Moschus, before the Trojan War. Leucippus, Democritus, and Epicurus, though not the introducers, described it and proved reasonably that atoms are the first principles of bodies. The views of Epicurus are considered by many to be the foundations on which many later Europeans formulated their own theories. As for Leucippus, whose historical existence has on occasion been disputed, we know that he was active in Miletus around the middle of the 5th century BC. According to Aristotle and Theophrastus, the title of his work was the *Great World System* (*Megas Diakosmos*). One of his students was Democritus, who was born in Abdera around 460 BC. All the original writings of Democritus are lost but excerpts of his work survive in later writers. Epicurus continued after Democritus.

The basis for adopting the existence of atoms is the acceptance of the existence of a vacuum, which is another distinction from Aristotelian philosophy. The existence of a vacuum, however, contradicts the theory of an infinite divisibility of matter. For this contradiction to be resolved, Leucippus' atom must be free of any vacuum and remain unchanged; a vacuum can exist only in the space between the atoms. Atoms are not born; they are indestructible, unchangeable, simple, and therefore eternal and with specific dimensions. They are not motionless but are in a state of a perpetual spin, which allows similar atoms to come closer together. According to Democritus, bodies are initially formed by the joining and binding of groups of atoms that eventually mould a world or worlds, since atomistic philosophers support the existence of infinite worlds. The perfect atoms move towards the peripheral and form a spherical celestial dome; heavier materials move towards the centre of the sphere and constitute the earth. Based on the atomic theory, Democritus tried to give a convincing interpretation of the subject of colours, maintaining that the four primary colours–white, black, red, and yellow–were the result of the different types and positions of the atoms inside the body.

From the ancient Greek theory of atomism, Newton mainly adopted that of hardness when he expanded his atomic theory in the *Opticks* (Query 23). Many, however, consider that the scientist who brought the atomic theory into the public eye was Pierre Gassendi, who in 1649 published his comments on the 10th book of Diogenes Laertius and the *Syntagma Philosophiae Epicuri*, both of which contained a presentation of Epicurean and Democritean atomization.

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See also **Physics**

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ATTALIDS

Ruling dynasty of the Hellenistic kingdom of Pergamum

The Attalids were the ruling family of the kingdom of Pergamum, which flourished under their control in the Hellenistic period from 281 to 133 BC. The dynasty was established by Philetaerus, a general in the army of Lysimachus, one of the successors of Alexander the Great. Lysimachus had gained control of Thrace and northwestern Asia Minor in the struggles after Alexander's death (323 BC), and he kept a large part of his state treasury in the city of Pergamum, which was under Philetaerus' command. In 281 BC Lysimachus was killed in battle, and Philetaerus laid claim both to Pergamum and to the treasury of 9000 talents. The 18 years of Philetaerus' rule (281–263 BC) were dedicated primarily to establishing and extending his control of northwestern Asia Minor and solidifying his family's position as the rulers of Pergamum.

In the early 3rd century BC Pergamum was a small Greek city built on top of a high acropolis whose walls enclosed houses, military barracks, storerooms, water cisterns, an agora (marketplace), and a small temple built of andesite (the locally available stone) honouring Athena (patron deity of the city); near the lower reaches of the citadel, outside the walls, was a temple of Demeter. Food was supplied by farms in the surrounding plain of the fertile Caicus river valley. With his financial wealth, an easily defended acropolis, a fertile farming region, and reliable water sources, Philetaerus' main problem was protecting the outlying parts of Pergamum from the city's enemies. The most insistent of these were the marauding Gauls, a warlike tribe from central Europe that had crossed into Asia Minor in 278 BC and was harassing the cities and towns of northern and western Anatolia. While Philetaerus waged several successful battles against the Gauls between 278 and 276 BC, he often dealt with their threats of attack and plunder in the same manner as other local political leaders – by paying hefty tribute.

Philetaerus, who had no children of his own, adopted his nephew Eumenes, and named him his successor. Eumenes I (263–241 BC) was occupied in much the same manner as his uncle: he defended Pergamum against the more powerful Hellenistic kings, especially the Seleucids, extended the territory under his control, and continued the policy of pacifying the Gauls through payment of onerous tribute. Eumenes I was followed by his cousin Attalus I, who ruled from 241 to 197 BC. Attalus was an astute politician, a brilliant general, and a patron of education and the arts. It was during his reign that Pergamum began its transition from a hilltop fortress to a splendid Hellenistic metropolis. His first major act was to refuse to pay tribute to the ever-menacing Gauls. He led the Pergamene army against them, defeating them solidly. In honour of his achievement, the epithet "Soter" (Saviour) was added to his name, and he was the first of his family to be given the title "king". The victory over the Gauls was followed by a number of military successes, often in alliance with an increasingly powerful Rome, and Pergamum's control and influence in Asia Minor were extended and strengthened.

Two of his sons followed Attalus I as king – Eumenes II (197–159 BC) and Attalus II (159–138 BC). Their reigns brought Pergamum to its zenith as a prominent political and cultural centre in the Hellenistic world. The city's population increased to more than 100,000 people, while the kingdom as a whole covered 172,880 sq km with a population of 5,500,000 comprising five classes of residents: citizens, foreign residents, soldiers, freedmen, and slaves. From the beginning, Pergamum had been governed by the constitution of a Greek city state, although the monarchy had exercised great authority in the political system. During the reign of Eumenes II the military alliance with Rome, which had contributed much to the growing strength of Pergamum, was temporarily broken and Eumenes led his army unassisted in an important battle against the Gauls, who were waging frequent attacks on many of the cities in Asia Minor. This victory, won without the help of his powerful ally, substantially enhanced Eumenes' standing among neighbouring political leaders and greatly increased the power of the Pergamene monarchy.

Attalus II was an elderly man when he ascended the throne upon the death of Eumenes II. During his 21-year reign (159–138 BC) he continued the policies of his brother. He was a competent military leader and diplomat, continued the alliance with Rome, and was a patron of scholars and artists. Attalus II was succeeded by Attalus III, a son of Eumenes II, who ruled for only five years (138–133 BC). Upon his death this last Attalid king bequeathed Pergamum to Rome in his will. This act has never been clearly understood, but his decision may have been based on the knowledge that there was little chance that Pergamum could remain independent much longer. Rome had conquered mainland Greece, and devastated those who stood against it. Because of Attalus III, the citizens of Pergamum were neither plundered nor enslaved, but continued their lives in peace under the new regime. Pergamum became the capital of the Roman province of Asia in 129 BC.

The Attalids, especially from the time of Attalus I, saw themselves as the preservers of Classical civilization in the Hellenistic period. Since the political and military endeavours of Alexander the Great and his successors in the 4th century BC had moved the focus of the Greek world to Asia Minor and the

Near East, resulting in the diminishment of mainland Greece, the goal of the dynasty was to make Pergamum the cultural and artistic successor of Athens. Along with the wealth of the original treasury of Lysimachus, the Attalids had a number of sources of income with which to implement their plan. Taxes were paid by the indigenous communities in the surrounding territory; tribute was paid by subject cities; and duties were assessed on items that were transported through territory under Attalid control. Pergamum also had great natural resources. Farms in the Caicus river valley produced wheat, barley, grapes, figs, olives, pomegranates, horses, pigs, cattle, and sheep. Mines and quarries supplied gold, zinc, copper, andesite, and marble. Pergamene factories produced wool, carpets, woven textiles, sewn garments, leather, perfumes, pottery, armour, and parchment. The great wealth of the kingdom by the 2nd century BC allowed Eumenes II to institute a major building programme that turned Pergamum into a magnificent city of marble monuments that was more than four times its original size.

Along with city planners and architects, Eumenes II welcomed artists and scholars. Pergamum had been known for its school of sculpture since the reign of Attalus I in the 3rd century BC when several famous sculptors came to the city to create a multifigured group to commemorate the king's victory over the Gauls. The epitome of the Pergamene school, and of all Hellenistic sculpture, however, was the reliefs of the spectacular Pergamum Altar (now in the Berlin Staatliche Museen), a monument that honoured the Attalid dynasty, their military victories, and Pergamum's founding hero, Telephus. Dynastic support of a wide range of scholars, especially those connected to the schools of philosophy in Athens, had begun during the reigns of Eumenes I and Attalus I. Attalus' own teacher had been a Peripatetic philosopher from Athens, and his son Attalus II studied at the Academy in Athens. While Pergamum did not develop a professional school comparable to that at Alexandria, the scholarly environment created by the kings attracted a large number of well-respected philosophers, mathematicians, historians, biographers, geographers, astronomers, poets, playwrights, engineers, physicians, and scientists. The Attalids' support was not restricted to the professional class, however, but extended as well to a sophisticated secondary education system in which both boys and girls from Pergamum received instruction.

The scholarly climate was enhanced even further by the creation of the renowned Pergamene library during the reign of Eumenes II in the 2nd century BC. Second only to the library at Alexandria in antiquity, at its height it may have owned as many as 200,000 works. The most significant scholar in Pergamum in that period was Crates of Mallus, a Stoic philosopher, literary critic, grammarian, and geographer, who was also probably director of the library. He created a system of cosmogony in which the earth was round, and while he was not the first person to describe the earth as a sphere, he was the first to construct a three-dimensional geographical globe. Crates seems to have been influential in encouraging the production and export of fine-quality parchment, for which Pergamum became justly famous. The use of parchment not only eventually displaced papyrus as the main writing material in antiquity, but it facilitated the development of the paged book (codex), which had replaced rolled documents by the 4th century AD.

As the power of the Roman empire waned in the 3rd century AD, Pergamum declined in population and contracted in size. The city diminished in standing as a centre of political, commercial, and military activity. Except for the renovation of the temple of the Egyptian gods as a Christian basilica, it also played only a small role in ecclesiastical affairs. The sanctuary of Asclepius was abandoned, as were most other buildings in the plain and on the lower levels of the acropolis. By the late 3rd century AD the city consisted primarily of houses built over earlier structures on the fortified upper acropolis. Pergamum did continue the Attalid tradition of being a centre of intellectual activity, however, playing a prominent role in the scholarship of the 4th century. It was home to the school of Aedesius (d. 355), a Neoplatonist who trained most of the famous teachers of philosophy in western Anatolia, including Maximus of Ephesus (d. 371), one of whose pupils was the future emperor Julian. Oribasius (d. 400), a companion of Julian and a native of Pergamum, was one of the most famous doctors and medical writers of the period; he was especially noted for his compilation of excerpts from the works of earlier Greek and Roman physicians.

While Pergamum continued to be occupied during the Byzantine period, it is little more than a shadow on the page of history. It was captured for brief periods by the Arabs in the 7th and 8th centuries, and refortified by the Byzantine emperors Constans II and Manuel Komnenos in the 7th and 12th centuries, respectively. It came under the authority of the Greek emperor of Nicaea, Theodore Laskaris, in 1214, then Turkish emirs gained control in 1302. By the end of the 14th century Pergamum had been nearly destroyed by invasion and sacking. In the Byzantine period ancient Greek manuscripts and knowledge of Classical culture were preserved in major centres of learning, such as Constantinople, Thessalonica, and southern Italy. How much influence came down to them from the scholarly environment created by the Attalids at Pergamum – through the disbursement of the library's holdings or through the students trained by teachers from Pergamum – remains unclear from the current state of knowledge.

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See also **Pergamum**

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ATTICA

Region of central Greece

Ancient Attica was made up the greater part of the modern nome of the same name. A three-sided peninsula which protrudes from central Greece, Attica is surrounded by sea on two sides with Cape Sunium and its famous temple of Poseidon at the southernmost tip. On the landward side Boeotia and Megara lie on the borders. In antiquity Attica covered over 2400 sq km and embraced a variety of mountain ranges and valleys as well as coastal and inland plains. The extent of the territory increased in specific periods, as the disputed areas fought over by Athens and Boeotia or Athens and Megara were added to Attica.

The Parnes mountain range separates Attica from its main northern rival, Boeotia. Here the competing poleis (or city states) fought over the upland plains and near the coast the important centre of Oropus. At the heart of Attica lies the Cephisus plain with the city of Athens at its centre. Enclosing the city and its plain are the mountain ranges of Hymettus on the east and Aegaleus on the west. Beyond Aegaleus stretches the Thriasian plain and the border with Megara. Eleusis lies at the southern edge of this plain. It looks across to the island of Salamis which was part of the Athenian polis in antiquity. To the northeast of Athens lie the Penteli mountains. Both Hymettus and Penteli provided the city with marble for building projects, most famously those on the Athenian Acropolis of the 5th century BC funded by the maritime empire. In southern Attica, the other major upland area, the Laurium hills were famous for silver and lead ores. The silver financed the construction of Athenian ships in the first quarter of the 5th century and continued to provide Athens with a large reserve of wealth on which it built its success. The natural resources of Attica, precious metal and marble, supplemented its agricultural assets, in particular olive oil, honey, and figs. These were the three most important cultivated crops of the region in antiquity.

Attica has been occupied since neolithic times. Evidence for human activity on the Acropolis dates back to about 3000 BC: pits and wells containing late neolithic pottery have been found near the Clepsydra spring on the north slopes. Wells and burials of the Early and Middle Helladic periods (3000–1500 BC) show signs of continued and expanding human settlement in Attica into the Late Bronze Age. In the Mycenaean period (Late Helladic: 1550–1100) the growth in the number and quality of sites and the associated finds in Attica is remarkable. The end of the Mycenaean period sees a drop in the number of sites and quality of burial goods in Attica during the second half of 12th century BC. The Dark Age period, which covers the sub-Mycenaean to the end of the Protogeometric periods (1100–*c.*900 BC), is fast becoming a misnomer in the history of Attica. Iron technology spread quickly in this period, and was the dominant metal for swords, knives, axes, daggers, dress pins, and fibulae in the latter half of the 11th and the 10th centuries BC. The number of sites in Attica reaches a nadir in 1100 BC; but *c.*1050 BC there appears a new style of Attic pottery, the Protogeometric style, and a growing number of settlements on the east coast and inland become identifiable. This steady transformation of occupation after the sub-Mycenaean period is reflected in changes to burial practices; in addition, at the end of the 10th century, sanctuary offerings start to appear, examples of which are found at the Academy in Athens and on Mount Hymettus.

The Geometric period (*c.*900–700 BC) marks a rapid progression of developments in Attica. The number of known sites rises more than threefold between the 9th and the end of the 8th centuries. By 700 BC nearly half of the known Classical deme sites of Attica show signs of occupation. Despite the growth in evidence of monumental sanctuaries in the wider Greek world in the 8th and 7th centuries, Attica betrays fewer signs of such advances until later on. The 8th century is generally thought to be the time when Attica becomes a territory dominated by Athens; the widespread distribution of small settlements in the countryside is reflected by the large number of cemeteries found in the Attic countryside. These numbers fall in the 7th century and cult activity becomes the best indication of rural settlement. The 7th century is considered to be a time of revolutionary political changes in Attica: the mythical synoecism of Attica by Thesus may belong to the Geometric period or before, but the stories of family conflicts, the Cylonian conspiracy (*c.*630 BC), and the Solonian reforms of the early 6th century mark important periods in the history of Attica.

In the late 7th and 6th centuries political developments were centred on the control of power in Athens, and the reforms enacted there affected the whole of Attica. The unification of Attica as a political entity took place by the 7th century, and its subsequent history revolves around the relationship between the urban centre of Athens and its smaller, often rural communities. The power struggles of the 6th century, which present themselves as factional competition between groups, sometimes related by kinship ties, centre on regions within Attica (Herodotus, 1. 59). The experience of tyranny in Attica in the second half of the 6th century was not harsh. Many developments focused on Athens, but settlements outside the urban centre were improved during this period of growing prosperity and peace: Eleusis was developed with an impressive circuit wall and the Telesterion (the hall of the mysteries) took on the square hypostyle design which existed at the end of antiquity; the early developments of the theatre at Thoricus belong to this period; the temple of Apollo on Cape Zoster at Vouliagmeni dates back to this time.

The fall of the Pisistratids and the reforms of Cleisthenes of 508/07 transformed the political organization of Attica and so shaped the subsequent structure of the region's history. The people of Attica were formally arranged by demes, small village- or town-sized communities. A number of demes were located in Athens, but the majority of the demes were extra-urban. These 139 demes were allocated to 30 regional groupings (*trittyes*). Attica was divided into three groups of ten *trittyes*: there were ten *trittyes* from the coastal areas, ten from the plain or inland area, and ten from the city area. The grouping of demes into these local enclaves allowed some manipulation of territorial control. One *trittys* from each of the three areas made up a tribe, and there were ten tribes. This political reorganization of Attica

ensured that for much of antiquity the history of Athens could not be separated from the history of its surrounding rural territory.

The central role of demes formalized the political standing of rural settlements. The Cleisthenic reforms produced a system of political participation which involved the whole population of Attica in the running of the polis, even if the seat of power was located in the urban centre.

Attica in the Classical period flourished and became one of the most densely populated regions in Greece. Exploitation of the countryside increased rapidly, and the extent of farming and animal tending in the 4th century saw activity on even the most marginal of land.

The major cult centres of Attica at Rhamnous, Sunium, and Eleusis underwent intense contruction work. New temples were also built at Acharnae and at Brauron. The insecurities created by the Peloponnesian War saw the construction of forts in Attica: Thoricus and Sunium were enclosed by defences, fortresses were built at Phyle and Panakton. The war had considerable impact on the Attic countryside. Pericles' defence of Athens during the Archidamian War (431–421) forced those living in the countryside to move into the city on a regular basis. The countryside was not abandoned completely, but there are signs of devastation: the Dema wall house is thought to have fallen into disuse during this period. The relatively brief summer invasions by the Spartan army during these years were less severe than the disruptions which the construction of a Spartan fort on Deceleia achieved between 413 and 403. The role of the harbour town Piraeus and the strategic roles played by Eleusis, Sunium, and Rhamnous were crucial to the security of Attica. Their functions became more formalized by the end of the 4th century and were to remain so for at least the next three centuries.

The archaeological evidence for settlement and activity in Attica peaks in the 4th century: epigraphic evidence for the erection of decrees, funerary material, and religious dedications all climax in this period. The decline of evidence and signs of activity in the 3rd and 2nd centuries is thought to suggest that people withdrew from the countryside and migrated to the city. But the continuing success of Eleusis and Rhamnous throughout the Hellenistic period and the importance of the countryside as a source of food supplies suggest that Attica remained relatively well populated in the 3rd to 1st centuries BC. Clear signs of decline in activity focus on the Laurium mining region which had been heavily populated in the 5th and especially 4th centuries. The exploitation of silver by Athens in this area attracted large numbers of slaves, industry, and farming. The decline of mining in the first half of the 3rd century, and the small level of activity from the late 3rd century onwards, mark a stark contrast with the Classical period. The occupation of Attica in the 3rd and 2nd centuries should not be based on the exceptional patterns of activity seen in Laurium; Heracleides Creticus, writing in the late 3rd century, described Attica as a fertile region with a large number of inns and good road networks, all of which indicates some level of rural occupation.

The Hellenistic period may signify a decline in the intense exploitation of Attica; the real drop in activity belongs to the late Hellenistic and early Roman period in line with many other rural areas in Greece. The virtual disappearance of settlement and activity in and around Panakton in the previously disputed area between Boeotia and Attica from 200 BC to the late Roman period symbolizes the reduced pressure on the countryside in this period. The pattern of exploitation in marginal land in Attica is one way of calibrating the levels of activity in the area.

But the Roman period also sees an increasing revival in prosperity in other parts of Attica concentrated among a much smaller number of individuals. In the early 2nd century AD Herodes Atticus displayed his wealth in Athens but also developed Marathon as a personal estate. In contrast, some areas declined as the urban centre of Athens increasingly became the focus of expenditure: the Augustan period saw the removal of elements from the temple of Poseidon at Sunium into the rebuilt temple of Ares in the Agora at Athens.

In the late Roman period there is a brief intensification of activity in Attica, in line with general signs of revival in Athens. The Herulian sack of Athens in AD 267 and the subsequent decline of activity in Attica mark the gradual drift of the region from the prosperity of the Greek and Roman periods.

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B

BABRIUS

Writer of fables of the 1st or 2nd century AD

Babrius wrote verse fables, 144 of which are extant in their original metrical form. In addition, two proems (prefaces) remain, which seems to indicate that the fables were originally published in two books. The first proem is dedicated to one "boy Branchus", the second to "king Alexander's son". These two addressees are probably one and the same person. It is, however, unclear with what historical king Alexander prince Branchus' father is to be equated. We do possess external termini ante quem: since Babrius' fables can be shown to have been well known by the early 3rd century AD, the author can safely be assumed to have lived in the 2nd or late 1st century AD; a still earlier date is excluded by the linguistic evidence. Quite unlike his predecessor Phaedrus (early 1st century AD), who was a Greek writing Latin fables, Babrius wrote in Greek, but was in all probability of Roman origin. This is indicated both by his very name, which occurs only in Latin and not in Greek inscriptions, and by a peculiarity of his metrical technique, accentuating each penultimate syllable, which is in accordance with Roman rather than with Greek prosody and stress. Babrius may have lived in the eastern (Greek-speaking) part of the Roman empire, more particularly in or near Syria. This is suggested by the literary and historically surprisingly exact ascription of the genre's origin to the Syrians (i.e. Assyrians) in the second proem. Further clues may be found in the author's professed personal experience with Arabs (57. 12), and in the oriental local colour of no. 8.

Babrius' fables are written in so-called choliambic trimeters (iambic trimeters with a long penultimate syllable). In both proems he selfconfidently states that he has "softened" the stinging iambs, by which he may be taken to mean that he has innovatively tempered the originally satiric connotations of choliambic metre. The fables' length varies considerably: on the one hand, the quatrain form is quite frequent, but the collection also includes a fable of 102 lines (no. 95). Many fables feature metrical epimythia, whose authenticity has sometimes unjustly been disputed. The collection has obviously been preserved incompletely, the alphabetic order in the principal manuscript abruptly ending with omicron.

The fables' subject matter is partly traditional and partly original, including all kinds of variations as well as fabulizations of mythological and other materials. Babrius seems to have drawn from a variety of sources. His narrative elaborations, psychological portrayal of protagonists, and mildly humorous tone are all stylistically idiosyncratic.

Babrius' fables enjoyed immediate popularity. A papyrus fragment dating from the early 3rd century AD (*Oxyrhynchus Papyri*, edited by B.P. Grenfell and A.S. Hunt, 1898–, 10. 1249) contains parts of four Babrius fables dealing with the theme of false judgement, which may be an indication that they were included in some sort of anthology used for moral education. That Babrius did soon become a school author is clear from various testimonies. First, the bilingual Graeco-Roman *Hermeneumata* ("Interpretations") by pseudo-Dositheus, which can be dated exactly to AD 207 and are explicitly composed "for lovers of Latin", contain 17 fables, 3 of which derive from Babrian prototypes. Second, 14 fables, 11 of which are in Babrian choliambs, have been preserved on the so-called Van Assendelft wax tablets (named after their Dutch buyer) from Palmyra (destroyed in AD 272); the many mistakes made in the Greek, as well as the very writing material, show that the fables served as a dictation given by a schoolmaster to a not-too-brilliant pupil. Third, we have a papyrus scrap (*Amherst Papyri*, edited by B.P. Grenfell and A.S. Hunt, 1900–, 2. 26; late 3rd or early 4th century AD) with fragments of three fables by Babrius, whose educational application is again clear from the accompanying Latin verbatim translation. Finally, another papyrus (*Bouriant Papyri*, 1; 4th century AD; edited by P. Collart, Paris: Champion, vol. 1), undoubtedly a Greek language teaching method, starting with monosyllabic words, ends with part of the first proem of Babrius' fable collection.

Babrius' fables also found more literate readers. In a Greek letter (*Epistle* 82; AD 362) the Roman emperor Julian explicitly quotes from a book containing fables by Babrius. In addition, Babrius' collection is the principal source for the 42 Latin fables in elegiac distichs by the Roman fabulist Avianus (*c.*AD 400), who pays tribute to his predecessor in the prose preface to his verse collection dedicated to the erudite Macrobius Ambrosius Theodosius, future praetorian prefect of Italy (AD 430).

The fables' popularity lasted throughout the Byzantine period. First of all, the *Suda* lexicon quotes more than 50 times from Babrius to exemplify particular words, and even lists the fabulist under a separate entry – in a way the Byzantine predecessor of this essay. John Georgides included many *epimythia* (concluding morals) from fables by Babrius in his *Gnomologium* (*c.*10th century). Two lexica (the so-called *Etymologicum Genuinum* and *Etymologicum Magnum*, dating from the 9th and 12th centuries respectively) exemplify two rare words (*omphax* and *pepromenon*) by quoting from two fables by Babrius. Two other lexica (Photios and, again, the *Suda*) paraphrase a Babrian fable to illustrate the meaning of a proverb (*tn kheira*). One fable (no. 141) is only (if incompletely) preserved by two rather late testimonies, the Byzantine polyhistor John Tzetzes (12th century) and the neo-Latin Natalis Comes (16th century).

An important witness of the collection's popularity is the large number (148) of prose paraphrases of Babrian fables. Many of these (more than 50) give the outline of fables not preserved in their original metrical form. In addition, Babrius is the primary source of the Byzantine *Tetrastichs*, a collection of 89 fable quatrains in quasi-ancient iambic trimeters or typically Byzantine dodecasyllabic verses, ascribed to Ignatios (Diakonos?; 9th century). Their author(s) may have found inspiration in the frequency of four-liners among Babrius' fables mentioned above. The *Tetrastichs* were widely read in the Middle Ages, as is demonstrated by the great number of manuscripts, many of them falsely proclaiming Babrius as their author, and even misspelling his name as Babrias, Gabrias, or even worse. Their alleged Babrian authorship has been taken for granted more than once; even the famous French fabulist Jean de la Fontaine states that he has used Babrius, whereas it can be shown that he really read the *Tetrastichs*, and that in a Latin translation. Conversely, a scholium on Thucydides (4. 92) quotes as if from Aesop two verses by Babrius, whose proems admittedly do stereotypically mention the legendary fabulist as a source of inspiration.

Three Byzantine manuscripts containing fables by Babrius are extant: A, G, and V, named after the libraries in which they once were, or still are, kept, on Mount Athos, in Grottaferrata, and the Vatican, respectively. The principal manuscript A (now in the British Library, Add. 22087; 10th century) contains 122 fables, which are, like the prose paraphrases and the so-called Aesopic fables, alphabetically ordered by their incipit; the alphabetization of the second proem (under *m*, as it begins with *mythos*) makes it a priori unlikely that this order is the author's. G (now in the Pierpont Morgan Library, New York, Cod. 397; 10th century) has – in addition to an important version of the *Life of Aesop* – 31 fables, 4 of which are preserved only here; V (Cod. Vaticanus Gr. 777; 15th century) has 30 fables, 12 of which are not in A.

Modern times have seen the gradual publication of Babrius' collection. The fables from A and V, as well as the wax tablets, *Hermeneumata*, and prose paraphrases, were first published in the 19th century, whereas G and the papyri reappeared only in the 20th century. The rediscovery of the Athonite manuscript in 1842 by Minoides Mynas and its subsequent first edition (edited by J.F. Boissonade, Paris, 1844) were a first-rate scholarly sensation at the time. The enthusiastic finder was inspired by his success to compose a series of fables in the manner of Babrius; his forgeries did mislead one editor (G.C. Lewis, London, 1846), but the pseudo-Babrius was soon unmasked as a jackdaw strutting with borrowed feathers. This curious little anecdote epitomizes a problematic implication of the fables' popularity. In view of the author's own complaint in his second proem that imitators "sneaked in when I first opened the door", those studying the many fables and paraphrases connected with his name should at least not rule out too easily the possibility that the accepted body of Babrius's work includes some forgeries.

GERT-JAN VAN DIJK

See also **Fable**

Biography

Babrius lived in the 2nd or late 1st century AD, perhaps in Syria. He was probably of Roman origin but wrote verse fables in Greek, of which 144 survive in their metrical form. Prose paraphrases of more than 50 others survive. He remained popular throughout the Byzantine period.

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BACCHYLIDES

Lyric poet of the 5th century BC

Bacchylides, from Iulis on Ceos, was born around 510 BC and was active until the third quarter of the 5th century BC. A

papyrus discovered in 1896 has preserved substantial remains of some 14 of his epinician odes (victory songs) and six dithyrambs (poems on heroic subjects). Bacchylides also composed hymns to the gods, paeans (hymns to Apollo), hyporchemes (songs for dancing), prosodia (processional songs), partheneia (songs for maidens), erotica (songs of love), and possibly enkomia (songs of praise), of which only fragments remain.

Little is known of his life. The poetic talents of the young Bacchylides probably developed under the influence of his uncle Simonides, who composed in a similar range of genres. Like many Greek poets before him, Bacchylides enjoyed the attention of a wealthy prince. Three of his surviving epinician odes are addressed to Hieron, tyrant of Syracuse, and the poet must have spent time in Sicily in the 470s BC. Ancient scholars believed that Bacchylides and his contemporary Pindar rivalled each other at Hieron's court for the favour of the powerful ruler. Bacchylides and his poems were also well received in many other parts of the Greek world. Among the addressees of his victory odes were athletes from Ceos, Aegina, Athens, Thessaly, Phlius, and Metapontum; and his surviving dithyrambs appear to have been performed in Athens, Delos, Delphi, and Sparta.

Bacchylides composed his victory odes for performance in the victor's home town after his return from the games, or, in the case of shorter hymns, to be performed at the athletic festivals. The odes were performed by choruses, which danced or processed while singing the odes to the accompaniment of the aulos and/or the lyre. The poems typically contain a mixture of praise, aphoristic statements, and myth. Since an ode usually records the name of the athlete, the specific contest won (chariot race, wrestling, etc.), and the location of the competition (Olympia, Delphi, etc.), it functions as an announcement and commemoration of the victory. Also included in the poet's praise are the victor's family and city of origin. Scattered gnomic statements, expressing proverbial wisdom or beliefs, enhance and temper the words of praise: "no mortal is blessed in all things" (5. 53–55), "fame follows him whom the gods honour" (5. 193–94). The third typical component of the odes, the often extended narration of heroic myth, serves several purposes. The inclusion of myths is a form of praise for the poems' addressees, as some association is implied between the achievements of the athletes and the exploits of the heroes. In poem 13, for example, the games at Nemea are understood to commemorate the struggle between Heracles and the Nemean lion. Recollections of specific mythic figures sometimes reflect the noble past of a victor's homeland. Poem 1, composed for a Cean victor, tells the story of Dexithea and her son, the Cean hero Euxantius. Myths of the heroic past may also illustrate principles and beliefs. Poem 3 relates the miraculous rescue of the semi-mythological king Croesus as evidence that the gods reward generosity and piety.

The dithyrambs, intended for choral performance at religious festivals and competitions, narrate scenes from heroic myth. Perhaps Bacchylides' most famous dithyramb, ode 17, tells how Theseus, while sailing to Crete with Minos and the contingent of captive Athenian youths and maidens, descended into the sea to the house of his father Poseidon and received gifts from Amphitrite. The poem characterizes the hero as a champion of the Athenians, opposing the aggression of Minos, and the affirmation that Theseus was the son of Poseidon may reflect the growth of Athenian naval power in the Aegean between and after the Persian Wars. The subjects of Bacchylides' other dithyrambs include the embassy of Menelaus and Odysseus to Troy, Heracles' celebration of the capture of Oechalia, the arrival of the young Theseus at Athens, Io's escape from Argus, and the marriage of Idas and Marpessa.

Bacchylides drew upon a range of previous poetry for his mythic material. Prominent among these sources were the early epic poets, from whom Bacchylides adopted legends about Heracles, Menelaus, and Meleager. He quotes one aphorism directly from Hesiod, and other maxims recall Theognis and Solon. It is reasonable to assume that, in regard to style and manner of presentation, Bacchylides was heavily indebted to his uncle Simonides, a pioneer in the development of the victory ode, but the scanty remains of Simonides allow little comparison. Bacchylides shares in common with Pindar the use of myth and maxim, and he seems occasionally to have imitated his older contemporary, but the styles of the two poets differ significantly. Pindar favours daring metaphor and dense imagery, while Bacchylides prefers simpler modes of expressions. Bacchylides also prefers clear, linear narration of myth, as was the practice in epic. His introduction of dialogue into his narration is reminiscent of Homer and was probably influenced by Stesichorus.

Bacchylides found no immediate successor, and the types of choral lyric he composed waned in popularity as the 5th century BC progressed, but his poetry was remembered long after his death. Alexandrian scholars counted Bacchylides among the nine great lyric poets. He is mentioned several times in the scholia of Homer, Hesiod, Pindar, and others. He found an admirer and imitator in the Roman poet Horace. Quotations and references to Bacchylides in such authors as Longinus, Plutarch, Athenaeus, and Stobaeus attest to his enduring appeal, but the manuscript transmission seems to have been broken in the Roman period and his works were lost until the discovery of the papyrus in 1896.

MICHAEL J. ANDERSON

Biography

Born *c.*510 BC on Ceos, Bacchylides was active at least until 450 BC. He was the nephew of the poet Simonides and was no doubt influenced by him. In the 470s BC he spent time at the court of Hieron I, tyrant of Syracuse, where he may have been a rival of Pindar. Substantial fragments of poems in various genres survive, notably epinician odes and dithyrambs.

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BACTRIA

Region of Central Asia

Annexed to the Persian empire by Cyrus II (Herodotus, l. 153), probably in the 530s BC, Bactria was an important satrapy of the Achaemenids, bordering on the Oxus river in the north, the Pamir mountains in the northeast, and the Hindu Kush in the south. In 522/21 BC the satrap of Bactria, Dadarshish, supported Darius I against the rebellious Armenians and quashed the uprising of neighbouring Margiana. His successor was Artabanus, who probably was satrap between 500 BC and 465 BC. Bactrian infantry and cavalry, equipped with reed bows and short spears, fought under the command of Hystaspes, a brother of Xerxes, in the invasion of Greece in 480/79 BC (Herodotus, 7. 64). Together with the Medes and Saka, the Bactrian contingent wintered in Thessaly in 480/79 BC under the command of Mardonius. In consequence of a palace intrigue Xerxes' brother Masistes, the *hyparchos* (subordinate governor) of Bactria, planned a revolt against the king in Bactria, but was killed on his way there (Herodotus, 9. 113). At the battle of Gaugamela Bactrian and Saka forces faced Alexander and his companions, marking them as the strongest force in the army of the Persian king. After his defeat Darius III tried to escape to Bactria, but he was killed by its satrap Bessus, who was also a relative of the king (Arrian, *Anabasis*, 3.21.5, 3. 30. 4). When Bessus assumed the Persian tiara and proclaimed himself king, Alexander immediately moved his army to Bactria to kill Bessus. The Bactrian capital Bactra, modern Balkh, was Alexander's residence in 329/28 BC before he continued his campaign against Sogdiana the following spring. Bactrian rebellion against Alexander in the summer of 329 BC lasted for two years, and when it was finally quashed, Alexander took 30,000 Bactrians and Sogdians as hostages.

Bactria was a wealthy province, profiting undoubtedly from trade between Persia and India, but also benefiting from fertile oases and pasturage. According to Herodotus (3. 92) Bactria paid an annual tribute of 360 talents of silver to the king of Persia. Reliefs at Persepolis show a Bactrian delegation bringing gold and camels as gifts to the king. The fact that several of Bactria's satraps were relatives of the king of Persia reflects the importance of this province for the Persian empire.

In the Seleucid period Bactria-Sogdiana formed a vast satrapy under one satrap, and was recognized as a wealthy province with valuable resources. In the 230s BC, led by the Greek Diodotus, Bactria revolted against the Seleucids and Diodotus proclaimed himself king. In 206 BC, after a two-year siege, Antiochus III was forced to recognize the Bactrian king Euthydemus. The Greek-Bactrian kingdom survived until 140 BC, when the Saka invaded Bactria, only to be expelled by a new power, the Tocharians, who invaded the country in AD 100.

Little evidence exists to elucidate the influence of Bactrian culture on the Greeks. While new foundations and extensive irrigation systems attest to the emergence of a growing Greek population in Bactria, the nature of the relationship between the local population and the new Greek-Bactrian rulers is difficult to establish. This uncertainty is illustrated by Ai Khanoum, a city of Greek foundation, complete with gymnasium and theatre, whose religious architecture, however, is distinctly oriental. Though Greek artists brought to Bactria much of the Greek style in art and architecture, they gradually assimilated new, local forms and styles. Bactrian Greek art was probably produced for the ruling elite, but must have existed alongside local traditions. Among the new species of plants introduced from Bactria to the Hellenistic world were the pistachio tree, which, according to Theophrastus, grew there (*Historia Plantarum*, 4. 4. 7).

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BANKING

Banking in Greece is, as M. Rostovtzeff remarks, "as ancient as the use of a coinage issued and guaranteed by the state". The earliest bankers (*trapezites*), the money-changers, sat behind their tables (*trapezai*) in the streets and marketplaces of ancient Greece ready to exchange coins of other cities. If the banking business is loosely defined as the storage of valuables and the lending of money at interest to borrowers, then the first primitive banks of Greece can be considered to be the temples. Since they were recipients of the offerings of the devout and because their sacrosanct character made them ordinarily safe from pillage, it is easy to see how this form of business began. Funds deposited in temples remained untouched and cash was lent from the temples' own funds to states, and also apparently – although the evidence is not certain – to individuals. The temple of the goddess Athena at Athens, for example, lent money to the state between 433 and 427 BC at 6 per cent. It must, however, be emphasized that the temples never operated a general banking business; that was left to private individuals.

The earliest mentioned banker in Greece for whom we have proper evidence is one Philostephanus of Corinth, who received a deposit of the considerable sum of 70 talents from Themistocles. In the 4th century BC we know the names of about 20 Athenian bankers. But banking in ancient Athens was a small

private concern, never a great international system, organized and carried on in a modern way. The never-ending wars of ancient Greek cities and the great danger that pirates constituted to foreign trade made international banking impossible. Even among towns in the same state there were no banking facilities. The cheque and the bill of exchange were unknown.

The banking operation in Athens, like nearly all other commercial activities, was performed mainly by metics (people not native to the city). For this reason, bankers were sometimes considered marginal to society. The most famous and wealthy ancient Greek banker was Pasion (d. 370/69 BC), a former slave. Although there were rich and famous bankers, yet money-lending and foreign exchange operations were, to a large extent, carried on by usurers. Interest rates of 30 per cent were not uncommon, especially for loans made to merchants and shipmasters for the furtherance of commercial ventures in overseas trade.

In addition to temples and individuals, some city banks existed (in the case of Athens the evidence is not strong). Miletus, for example, known for its financial strength, instead of having recourse to private bankers or temples for its money transactions, created a state bank. A further step was the establishment of a state bank monopoly.

The banking business, despite its local character and the absence of foreign operations, was relatively well developed in the ancient Greek city states, a characteristic that was later inherited by the banks of the Hellenistic world. One of the new principal features of that period was the rapid spread of city as well as temple banks, the best known of which were those of Cos, Ephesus, and Sardis. Although the evidence is not abundant, we know that temples in the Seleucid empire were highly respected at least in the early times of the dynasty. When, because of financial difficulties, some Seleucid emperors required the surrender of temple wealth, the action provoked a fierce reaction from the citizens because the bulk of the money consisted of private deposits.

The Ptolemaic banking system, on the other hand, assumed a peculiar and unique character. Its chief novelty was the centralization of banking by the creation of a state bank in Alexandria. Private banks played a secondary role in the economic life of Egypt. The Ptolemaic central bank was organized on a Greek pattern and in general was not very different from a regular city bank. Because the bank was an institution whose primary business was the custody and investment of the state's money and sometimes the collection of taxes, the interests of private clients were of secondary concern to it. Given the guarantees needed by the state bank to finance private ventures, individuals in need of money almost certainly had recourse to private banks. As a consequence of its good management, citizens preferred to deposit their money in it. The kings were not opposed to this extension of the activities of the bank as it meant an increase in their income and involved very little risk. In addition to these activities, the bank had dealings in corn, since corn in Egypt was almost an equivalent of money. The government's granaries were effectively a network of corn banks with their centre in Alexandria. They were managed by a special staff, who had the same functions as the bankers; namely, they acted as intermediaries for either state or private corn transactions. The Ptolemaic banking system did not disappear with the rule of the Ptolemies. It was retained with some modifications by the Roman administrators of Egypt and it influenced the Roman and Byzantine system of tax and rent collection.

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See also **Finance; Taxation**

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BEIRUT

City in Phoenicia

Archaeological evidence of occupation on the site of Beirut goes back to Neolithic times. The earliest mention of the name occurs in the Amarna letters (1377–1360 BC). After Alexander the Great had conquered the Near East, the city was Hellenized under the rule of the Ptolemaic and Seleucid dynasties. The Roman emperor Augustus settled veterans on the site, and around 14 BC Beirut (Latin Berytus) received the status of a Roman colony. Henceforth it was an island of Latin culture in the Greek Near East.

Beirut owed not a few of the monumental buildings that marked it as a Graeco-Roman city to the patronage of king Herod of Judaea and his descendants. The religion of Beirut had a Graeco-Roman superstructure built on Semitic foundations. Poseidon/Neptune, the principal deity, was probably a Hellenized version of Baal Markod. The patron goddess of the city, Aphrodite/Venus, who was worshipped in a temple of Roman design, was probably Astarte in Graeco-Roman guise.

Beirut was a trading city known for its silk and purple dyeing. Around AD 238 the school of Roman law is mentioned

for the first time. Gregory Thaumaturgus, later to be a famous missionary bishop, was a student. In the 4th century many young men who were hoping to make a career in the imperial service or the courts enrolled to study Roman law. At the time the sophist Libanius was worried that the competition of professional studies in Latin and law would replace the traditional rhetorical education based on the study of Greek literature. In the end his fear proved groundless. The latest known public inscription from Beirut written in Latin dates from AD 344. In the 5th century Greek became the language of instruction at the law school. From the prefecture of Cyrus (AD 439–42) praetorian prefects issued their edicts in Greek. In the 5th and early 6th centuries some very well-known jurists taught at Beirut, two of them members of the commission set up by Justinian to compile the *Corpus Iuris Civilis*. With the publication of the Code legal education was restricted to the schools in Constantinople, Rome, and Beirut.

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BIOGRAPHY AND AUTOBIOGRAPHY

The genre of biography, if it can indeed be called a genre before the advent of the saint's *Life*, was one of extreme fluidity, some examples being categorized in antiquity rather under other genres such as the encomium and the funeral speech. The format too varied greatly: Satyrus' *Life of Euripides*, for instance, a work of the 3rd century BC, was even written as a dialogue. The term "biography" itself does not appear before the 5th century AD (in fragments of Damascius' *Life of Isidorus*), although *bios* (life) occurs for some varieties of biography from the 4th century BC, when it was even used collectively for Dicaearchus' cultural *Life of Greece*. The word "autobiography" is not ancient at all, but appears to have been coined by an anonymous English reviewer in 1797, and rejected by its author as pedantic.

The germ of biography is evident in the earliest Greek literature. In each of the Homeric epics an interest in the doings of individuals is signalled in the opening line. The *Iliad* deals centrally with the wrath of Achilles in his quarrel with Agamemnon and adds excursus on the prowess of a host of other noble warriors in preference to detailing the progress of a campaign; the *Odyssey* focuses on the adventures over a ten-year period of its eponymous hero. Personal revelations are made by Hesiod in his *Works and Days* and also, although there is much modern scholarly argument over their veracity, by the lyric poets of the Archaic age. An interest in genealogy too is attested towards the end of this period.

True biography and autobiography, however, began only in the 5th and 4th centuries BC. According to Momigliano, the first occurred largely in Greek Asia Minor, and he plausibly attributes it to eastern influence, and the second in mariners' accounts of their voyages, but the scanty evidence precludes any certainty in either case. From the beginning, however, as far as can be perceived, and throughout the history of surviving Classical and Byzantine biographical writing, one feature was consistently maintained: in the case especially of political and military figures, to a far greater extent than in the modern world, a distinction was drawn between histories containing biographical information and works centred upon an individual. The former generally restrict themselves to adult activities, detail the individual's publicly important actions, and strive for a high standard of truth; the latter include information on childhood, emphasize the personality, and often twist the strict truth for the sake of the work's overall purpose (the loci classici are Polybius, 10. 24 and Plutarch, *Life of Alexander*, 1. 2).

Commonly cited as the earliest of all Greek biographies, and dating from the first third of the 5th century BC, is *Matters Concerning Heraclides, King of Mylasa* by Scylax of Caryanda. However, only the title is preserved (and that only in a Byzantine compilation of the 10th century AD), there is no indication whatsoever of the nature of the work, and its attribution to this rather than the later Scylax of Halicarnassus or even to a third Scylax is open to question. Quotations direct and indirect from *On Themistocles, Thucydides and Pericles* by Stesimbrotus of Thasos (*c.*470–425 BC) clearly indicate a decided bibliographic interest, but even here the exact nature of the work is unclear. Possibly groundbreaking is the roughly contemporary prose *Epidemiai* by the poet Ion of Chios in which he describes, with obvious autobiographical elements, his visits to and impressions of notable men both political and literary (e.g. the tragedians Aeschylus and Sophocles), while fragments indicate that he mentioned philosophers too, including Socrates (without proving in this case any personal acquaintance).

In the earliest surviving Greek history Herodotus shows overt biographical interest in eastern rulers, whereas his Greeks generally appear as individuals more covertly through their actions, the latter a tendency even more pronounced in Thucydides. This may simply be explicable on the ground of familiarity to their audiences, but may reflect oriental practice in monarchies in contrast to the more communal emphasis in the Greek city states. The oldest surviving Greek works actually centred upon an individual date from the first half of the 4th century BC and take notably different forms. First there are "apologies" (legal defences), especially of Socrates, for whom both Plato and Xenophon initiated a series of ever

more imaginary material which continued until the sophist Libanius' declamation in the 4th century AD. Plato's became increasingly regarded as the standard biography of the historical Socrates, while Xenophon supplemented his with a collection of reminiscences (*Memorabilia*) of the philosopher's conversations, most, if not all, garnered from other sources. In imitation Isocrates, in 353 BC at the age of 82, after an unsuccessful law suit, felt compelled to write an imaginary forensic defence of his own life's work (*Antidosis*). Demosthenes' *De Corona*, on the other hand, is a real and spirited defence of the author's political career delivered personally in court in 330 BC but dealing with the period before Athens' submission to Macedon. Fully fledged encomia too appeared in the first half of the 5th century BC. Isocrates asserts in his *Evagoras* (king of Salamis in Cyprus who was assassinated in 374 BC) that he is the first to "praise a man's virtues in prose", presumably meaning in an extended single work. The dramatic, though fictional, setting is a funeral oration, which in a democracy was usually reserved for citizens collectively lost in battle. His uncritical laudatory example was followed by Xenophon, whose *Agesilaus* similarly describes its subject's actions and virtues, but may have been inspired by adverse criticism of the Spartan king (died 359 BC). Two further works of Xenophon demonstrate the extended range of biographical writing. The *Anabasis* vigorously and memorably describes his own role in leading home from Mesopotamia the Greek mercenaries after the battle of Cunaxa in 401 BC. The *Cyropaedia* is extraordinarily difficult to classify, since it deals only briefly with its ostensible subject (the education of Cyrus the Great), and is closer to a very lengthy dissertation on ideal kingship. It has been described as both a philosophical novel and the precursor of the love-romance. Moreover, whereas in the *Anabasis* historical veracity is occasionally subordinated to a self-advertisement necessitated by (lost) rival accounts, the *Cyropaedia* is so cavalier with truth as, among numerous flagrantly fictitious assertions, to have its hero die in bed rather than battle.

Aristotle encouraged a continuing Peripatetic biographical interest in other directions. The only surviving work is Theophrastus' *Characters*, a series of 30 sketches of unpleasant types of personality. His contemporary Clearchus of Soli attempted descriptions of different peoples. Others, not all Peripatetics, wrote on real individual figures (Theophrastus himself on Aristotle's nephew Callisthenes of Olynthus, a historian of Alexander the Great executed by the king) and especially philosophers. Aristoxenus' *Lives* were anecdotal and waspish; Antigonus of Carystus raised the subject to a higher level of scholarly accuracy in the mid-3rd century BC; and in the early 2nd century BC Sotion tried in his 13-book *Succession of the Philosophers* to establish an intellectual lineage from teacher to student, a serial form of philosophical biography best known today in Diogenes Laertius' work of the 3rd (?) century AD. Poets were not forgotten, and with older figures (beginning with Homer) ignorance was often not permitted to vitiate a full account: Chamaeleon, for instance, in the late 4th or early 3rd century BC, inferred biographical facts from the writers' own compositions, a practice that could lead to ludicrous inaccuracies and (a far more serious problem) to numerous suspect assertions not demonstrably false. Through a love of sensationalism, in the 3rd century BC Hermippus of Smyrna was deliberately fraudulent in his biographies of philosophers, poets, and lawgivers, of whom some were mythical.

Political biography from the Hellenistic period has also perished. Nevertheless, scattered fragments and allusions point to an increasing interest in individual rulers which was inspired by the charismatic career of Alexander the Great and continued under the numerous subsequent monarchies. Some of these works naturally veered towards panegyric, such as *How Alexander was Brought Up* by the king's helmsman Onesicritus, who probably modelled his work on Xenophon's *Cyropaedia*. Adversely critical moral judgements, however, are suggested by monographs on types of public figures such as the Peripatetic Phaenias' *On the Tyrants of Sicily* and *The Slaying of Tyrants for Revenge*, Idomeneus' *On* [Athenian] *Demagogues* and Hermippus' *Lives of Those who Passed from Philosophy to Tyranny and Despotic Rule*. Nepos' surviving Latin biographies (including some of Greeks) from the 1st century AD, which have both an encomiastic and an ethical purpose, probably reflect a trend in most lost Hellenistic productions. Apologetic memoirs too by public figures continued, including the influential work of Aratus, the Sicyonian statesman of the 3rd century BC.

It is only from the imperial Roman age that true Greek biography and autobiography survive in substantial quantity, and even then not until the 1st and 2nd centuries AD. A largely new aspect of autobiographical works is their composition by intellectuals. Unfortunately only fragments remain of *On My Own Life and Education* by Nicolaus of Damascus, a Peripatetic aristocrat, tutor of the children of Mark Antony and adviser to Herod the Great (who wrote also a now fragmentary biography of Augustus which was based upon the emperor's own autobiography), but the Hellenized aristocratic Jewish priest Josephus saw fit to include intellectual matters in his surviving *Life*, which is chiefly intended as a defence of his command of Galilee during the first Jewish revolt (AD 66–70). The *To Himself* (*Meditations*) of the Roman emperor Marcus Aurelius, a unique work from antiquity consisting of very private self-exploratory musings on human existence whose subsequent publication is a complete mystery, also reflects (although it may not be categorized as a true autobiography) this trend, as does more clearly the physician Galen's philosophical *On My Own Opinions*. Notable later examples are the autobiography of the Antiochene rhetorician Libanius, written over nearly 20 years and in the form of a sophistic discourse, and most especially Synesius of Cyrene's *Dion*, in which he defends his attachment to Classical culture against both monkish asceticism and excessive pagan superstition.

Biographies of public figures reached their acme with Plutarch, whose *Parallel Lives* (in which he paired Greeks and Romans with usually a concluding comparison) was already an educational text by the early Byzantine period. Unlike many Greek biographies, they are of genuine literary merit and, despite some problems, real historical value; and they deal with the entire lives of their subject. Nevertheless, their primary aim was moral education through examples of virtuous and vicious behaviour. Their psychological observations are on occasion subtly perceptive. Historical monographs (rather than true biographies), centred upon an individual and usually verging on the encomium, also continued to be written, such as Arrian's *Anabasis of Alexander* and the somewhat earlier second book of Maccabees (an epitome of a lost work by a certain Jason of Cyrene).

Biographies of philosophers are still to be found in the imperial age, but, in reflection of current literary interests, sophists replace poets. Modern knowledge of the Second Sophistic is largely dependent upon the 3rd-century *Lives of the Sophists* by Lucius Flavius Philostratus (''the Athenian''), a collection of brief and at times tendentious sketches. Diogenes Laertius' compendium of the lives and tenets of ancient philosophers, derived from similar earlier compilations, is a work of industry but little critical acumen and is chiefly valuable today for its quotation of three compositions by Epicurus. Generally more scholarly, though laudatory, biographies are those of the Neoplatonists Plotinus and Proclus by their pupils Porphyry and Marinus respectively, while biographies of Pythagoras by Porphyry and Iamblichus claim him as the source of Plato's philosophy.

In the imperial (and Byzantine) age, far more than before, contemporary rulers were subject to epideictic oratory, which contained many biographical details, albeit highly encomiastic and selective. The late 3rd-century rhetorician Menander, in laying down their formulaic contents, shows the types into which these addresses were divided: they included the encomiastic imperial oration and the address to local governors, speeches of welcome and valediction, speeches at weddings, birthdays, and funerals, the ambassador's speech, and many more. Most surviving examples are Byzantine, the emperor expecting one every year at Epiphany, and the ecumenical patriarch on Lazarus Saturday.

Biography of the Hellenistic and imperial ages had similarities with and probably influence on the anecdotal style of the synoptic gospels, a feature that persisted into the Lives of martyrs and saints. It is unclear to what extent the rise of Christianity or simply the common culture of late antiquity may have prompted the empress Julia Domna (d. 217) to bid Philostratus write a biography of the neo-Pythagorean holy man Apollonius of Tyana, a fictionalized amalgam of exotic travel, miracles, exorcisms, sage advice, religious asceticism, and nonconformity unique in pagan biography. At least it elicited a comparison between Apollonius and Jesus, which in turn provoked a refutation by Eusebius in the early 4th century. Lives of Christian saints most probably induced Eunapius to follow Philostratus in producing similar, though inferior and idealized, sketches of 4th-century pagan philosophers, rhetoricians, and iatrosophists.

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See also **Historiography; Rhetoric**

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BIRTH

Birth is a crucial feature of the life cycle. In the Greek cultural milieu, childbearing and family continuity are of paramount importance, with marriage and children considered to be life's highest attainment. The procreative purpose of female sexuality is emphasized, the role of the mother is glorified, and there is an apparent tendency to chide those who are either unable to achieve such a state within marriage or in some way rebel against it. The birth of a child is seen as ensuring the regeneration of life within the family and the community. It is regarded as a way of defeating death and securing personal immortality, since Greek children often bear their grandparents' names. In antiquity the Greeks were also dependent on their offspring for the perpetuity of their families (*oikoi*), for support in old age, and for the tending of their tombs after death.

Until recently birth was primarily the concern of women. Its social history points to similarities in the experience and status of Greek women in all historical periods. The principal role of all Greek women was that of bearers and nurturers of legitimate children and, indeed, continuance of the race. Although we cannot speak of Greek women in antiquity as a unified group, legal and historical sources attest to the exclusion of women throughout Greece from the public domain, and to their devotion solely to reproduction. Indeed, even Spartan women – who were considered to be different and more visible than other Greek women in the public sphere because of their involvement in many athletic events – engaged in such activities with the main goal of bracing their bodies for delivering children for the city. Thus infertility in antiquity was viewed as a calamity; conversely, the birth of a child brought about a great change in the bride's position through full admission into the conjugal family, denied to her up to then.

Conception and childbirth were also seen as beneficial for female health and were prescribed as cures for a number of gynaecological conditions. Labour and delivery, however, could be difficult and in some cases could even lead to death. A high rate of both maternal and infant mortality is often assumed by researchers who report on the use of various herbal drinks, induced sneezing, or the tying of a pumice or a dead cyclamen root on a woman's thigh as a means of easing a difficult delivery. There was also a belief that delivery would be impeded if things were tied on or around the mother, for example, her hair or a belt. Because of the dangers involved in childbirth, women often invoked the help of certain deities who were believed to protect them on delivery, such as Artemis (Lochia), Athena, Eileithyia, and Genetyllis (in Attica).

Women gave birth at home with the assistance of female relatives and neighbours and/or a midwife. Male doctors were expected to assist only in cases of prolonged and hazardous labour. The role of the midwife was notable both in antiquity and in the recent past, and in some cases she shared the same status as a doctor. At birth it was the midwife who announced the sex of the child, cut and tied the umbilical cord, and judged its fitness to live. Yet, the expertise of the midwife was not limited to the process of delivery and to the birth itself. She was able to treat many female complaints that had to do with the uterus as well as postnatal problems, such as puerperal fever. In fact, a competent midwife possessed a wide knowledge of such diverse fields as dietetics, pharmacology, surgery (meaning the "work of hands"), and magic.

The use of a wet-nurse or dry-nurse was also common in Greek antiquity, but the mother was regarded as the infant's prime caretaker. However, children belonged to their fathers, not to their mothers, and Greek law codes asserted that in the event of the father's death the newborn should be offered to its father's family. Male infants were favoured and the male foetus was believed to be more active than the female. Women who carried a male child were thought to be healthier with a better complexion, as well as having an easier pregnancy and delivery. Many ethnographic data refer to the use of figurines to increase fertility. Women who desired to have a child made an effigy of themselves as pregnant or an effigy of their prospective child as an adult and carried it as a talisman. Some researchers believe that the large number of female idols found in the Aegean and dating from the early Neolithic period may reveal an earlier preference for the birth of girls, since fertility was crucial for the survival of the group and pregnancy as well as maternity may even have granted special symbolic value to women. However, data on infanticide and the exposure of infants in Hellenistic Greece reveal that, if such a preference existed in early antiquity, it must have ceased later on because girls formed the group that was most highly at risk from such practices. Both infanticide and abortion were regarded as acceptable forms of family planning, with the former being preferable to the latter from the point of view of the mother's health.

Childbirth was considered unclean both in antiquity and in the present day, because it is coloured by natural, profane blood and thus ritually pollutes all those concerned, especially the mother. In antiquity the mother was considered impure until her postnatal bleeding had stopped. For that period of time contact with the sacred was avoided and women were excluded from the temples. A 40-day purification period was also followed by women after an abortion.

During the Byzantine era birth was institutionalized with the establishment of some lying-in hospitals, but the majority of women continued to give birth at home with the help of a midwife. Although evidence is lacking concerning the size of families and the frequency of births in this period, there was still a high rate of maternal and infant mortality. In this regard, A. Laiou estimates the net birth rate in the 14th century as 22 per 1000. Christianity, however, changed attitudes towards marriage and procreation, which were now viewed as subordinate to celibacy. At the same time the prestige of the woman as wife and mother grew due to her association with the greatest archetype of Christian cosmology, the Mother of God. The birth of boys was still favoured over that of girls since girls had to be endowed with dowries, and infertility was still a source of tremendous shame. In Byzantium many pre-Christian beliefs concerning childbearing persisted despite their condemnation by the Church. In the absence of medical expertise midwives often employed a mixture of medical folklore practices and outright witchcraft to facilitate birth. Midwives were thus often associated with heretical beliefs and rituals. Women used various religious objects in order to gain divine assistance during delivery. The use of pagan amulets was also widespread, and was responsible for women commonly being accused of superstitious practices.

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See also **Abortion; Children; Women**

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BITHYNIA

Region of northwest Asia Minor

Bordering the Sea of Marmara, the straits of the Bosporus, and the southern shores of the Black Sea, and situated opposite Constantinople (Istanbul), Bithynia is today part of Turkey, and well known for its Byzantine fortifications and churches. Although originally confined to the peninsula of Chalcedon, it gradually extended eastwards to Heraclea and Paphlagonia and southwards across the Propontis to Mysian Olympus, a well-known Byzantine monastic centre during the iconoclastic period. Though mountainous and densely forested, it was one of the most prosperous regions of Asia Minor. Not only did it contain good pastureland, but it also produced fine timber and all kinds of fruits and grains. It was blessed with fine harbours, fertile valleys, and supplies of marble. The principal routes to the Anatolian plateau and to Pontus ran across it. However, its chief channel of communication was the Sangarius river which, with its tributaries, watered its fertile agricultural lands. As a corridor between Europe and inner Anatolia, Bithynia was situated in a strategic yet vulnerable position between east and west.

Bithynia was named after the Bithyni, one of the warlike Indo-European tribes that had emigrated from Thrace during the latter part of the 2nd millennium BC. In 560 BC the land was conquered by king Croesus of Lydia, but it fell into the hands of the Persians when the latter conquered Lydia four years later. However, foreign rule had very little effect on Bithynia, which retained its ethnic identity and survived into Hellenistic times under the rule of a local dynasty. It often waged war with the Greek colonies of the coast, and the warlike nature of its inhabitants saved it from complete domination by the Persians after the 6th century BC. It was occupied by Alexander the Great in 334 BC, although the warlike tribes did not fully submit to his conquest. After Alexander's death in 323 BC, Antigonus I ruled the land nominally for some time and founded Nicaea (modern Iznik), which subsequently became a prominent city of Bithynia. But the Bithynians regained their independence under Zipoetes in the early 3rd century BC. His son Nicomedes I established the first dynasty of Bithynian kings and ruled from 278 to 250 BC. In 264 BC he founded Nicomedia (modern Izmit) and made it his capital. He made an unsuccessful offer to pay the heavy public debt of the Cnidians in return for the *Venus* of Praxiteles. In order to protect themselves against the Seleucids and their rival Heraclea, the kings adopted a policy of both aggression and judicious alliance. As a result their power spread to inner Paphlagonia, to the fertile basins round Nicaea and Prusa, and eventually over the cities of the coast. Nicomedes invited into Anatolia as mercenary allies the warlike Celts who were subsequently settled in Galatia. This led to turbulent conditions in the land for many years thereafter. The country, however, prospered under his successors, stabilizing itself internally while shifting alliances and waging wars with powerful neighbours such as Pergamum to which, however, it lost some territory during the 2nd century BC. These kings founded cities and promoted Greek culture.

The kingdom reached the height of its power in the early 2nd century BC, but this was followed by a century of rapid decline under incompetent leadership. Its notable rulers were Prusias I (237–192 BC), Prusias II (192–148 BC), Nicomedes II (142–91 BC), and Nicomedes III (91–74 BC). The last mentioned was a close ally of the Romans, being little more than a Roman puppet, and on his death he bequeathed his kingdom to Rome. This led to the Third Mithridatic War (74–63 BC) when Mithridates VI of Pontus tried without success to prevent the Romans from annexing Bithynia. During 65–63 BC Pompey organized Bithynia and Pontus into a single Roman province for purposes of administration. Its capital was Nicomedia which, nearly three centuries later, became the imperial seat of Diocletian. To facilitate the maintenance of order and the collection of taxes, Pompey divided the territory among 11 cities. Much of the land was split up into large estates, especially in the region of Nicaea. Although this area was heavily exploited by the Publicani (tax-farmers) during the 1st century BC, and in consequence much land was transferred to Italian owners, under the empire it became very prosperous. The rapid recovery of these cities from the ravages of war speaks well for Roman rule.

At first, the new province was governed by proconsuls. However, under the Julio-Claudian emperors imperial procurators assumed greater responsibilities owing to the importance of the highways to the eastern frontiers and Syria as well as the maritime connections with the Black Sea. Under Trajan and Hadrian the proconsuls were replaced by special imperial legates, and this agreement became permanent from the time of Marcus Aurelius. Pliny the Younger was sent as propraetor to Bithynia to restore the solvency of some cities there, particularly Nicaea and Nicomedia, which so rivalled one another in building as to risk bankruptcy. His correspondence with Trajan well reflects the conditions of Bithynian city life in the early 2nd century AD, while the speeches of Dio Cocceianus show symptoms of a booming but uncontrolled civic prosperity, as reflected in embezzlement by magistrates, lavish building programmes, bitter feuds between cities, and popular discontent.

Bithynia was the home of some well-known scientists and writers such as Hipparchus of Nicaea and Arrian of Nicomedia. It was also the temporary residence of the Latin authors Catullus and Suetonius, as well as the younger Pliny. Helena, the mother of the emperor Constantine, came from Bithynia. The *octophorus*, or eight-man litter, was particularly associated with the Bithynian kings. Bithynia became a separate province in the early 4th century AD, and continued to exist into the 8th century when Slav captives were settled there.

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BOEOTIA

Region of central Greece

The land of Boeotia is hemmed in by mountains on all sides. Along the Corinthian gulf the high mass of Mount Helicon and the lower pine-clad heights of Mount Cithaeron form the southern links in the great chain of mountains starting with Pindus in the north and continuing with Parnassus in Phocis. Parnassus in turn sends a spur eastwards to meet a spur of Cnemis, the two leaving only a gap of some 400 m for the course of the Cephissus river. This line forms the boundary between Boeotia and Phocis. From Oeta in Thessaly another chain advances until it meets Parnes, which stretches westwards towards Cithaeron, thereby separating Boeotia from Attica.

Within these mountains Boeotia lay split into two great basins, that of Orchomenus in the west and that of Thebes in the east, each of them quite distinct and separated from the other by the ridge of Onchestus. Copais, the largest lake in Greece for most of history, further served to divide Boeotia. Reaching from Mount Ptoos in the east to Helicon in the west, the lake left only a narrow ribbon of land to carry the road between Orchomenus and Thebes. Apart from the mountains Lake Copais, drained in the late 19th century, was the most conspicuous feature of the landscape, covering an area of some 360 sq. km.

The western basin of Boeotia is a patchwork of small plains and valleys separated from one another by bare, rugged hills, and watered by numerous springs and rivulets. The region was thickly settled, with Chaeronea, Lebadea, Coronea, and Haliartus each commanding the resources of level ground, and Orchomenus dominating the entire area. The eastern basin was marked by more and larger plains that supported numerous cities. The combination of good land and an ample, steady supply of water ensured prosperous farming. The openness of the terrain also permitted easy communication among cities. This region possessed the only good road to the sea. Its many cities included Thisbe, Thespiae, Plataea, Acraephia, Tanagra, and Aulis. Within the basin the centrally located city of Thebes was predominant. From the outset of the Persian Wars until the *pax Romana* Boeotia was the "dancing floor of Ares", the scene of countless battles, an epithet equally applicable to later ages.

Within the western basin the plain of Chaeronea, onto which ran the high road from northern Greece, formed the threshold to Boeotia. Commanding a fertile plain some 20 km in length and 3 km in breadth, the walled city of Chaeronea stood at the foot of the hills on the southern side of the plain. Its scanty remains include the theatre and the lion monument that marks the site of the battle there in 338 BC between Philip of Macedon and the Greeks. Sulla defeated the army of the Hellenistic king Mithridates there in 86 BC. From Chaeronea a main road led northeastwards to Orchomenus, the principal city of the western basin. The city stood at the southern foot of Mount Acontium immediately above Lake Copais. Connecting the city with its fortified citadel runs a long line of magnificent walls. Its most notable architectural remains include the tholos, or beehive tomb, and the remains of a palace, both of which testify to the greatness of Orchomenus during the Mycenaean period (*c.*1600–1250 BC). From the Classical period comes the newly found theatre, and from the Byzantine period dates the church of Koimesis tis Theotokou (the Falling Asleep of the Mother of God), built in the Bulgar architectural tradition. Orchomenus was also the site of the battle of Lake Copais in 1311, when soldiers of the Catalan Grand Company smashed the defenders of Frankish Greece.

South of Orchomenus lay Lebadea, overlooking a fertile plain that stretched from Mount Helicon to the Copaic basin. The city itself was always strategically significant owing to its location on the main road between the western and eastern basins. Its prominence in antiquity was due to the famous oracle of Trophonius, which functioned from the 6th century BC until the 3rd century AD. Lebadea flourished during the Middle Ages. The extant Frankish fortifications testify to its prosperity and military importance. During the 14th century it was fought over by the Catalans, Franks, and Navarrese, only to fall to the Turks in 1394. It was the second city in Greece from the time of the Turks until the War of Independence. Its magnificent 18th-century watchtower is still conspicuous evidence of its prominence. The route westwards from Lebadea to Thebes passed the valley of Coronea, at the entrance of which sat the city on a twin-peaked summit. Remains of the city are few, but in its neighbourhood stood the renowned sanctuaries of Itonian Athena and Athena Alalcomenae. Coronea was additionally important because of its communications up the Phalarus valley to a highland route over Mount Helicon. Its topographical positron meant that Coronea was the scene of several major battles. At the eastward end of the road stood Haliartus, one of the strongest points between lake Copais and Mount Helicon. Situated on a low hill and surrounded by stout circuit-walls, Haliartus commanded a narrow pass that could not be outflanked, wherefore it too often became a battlefield. Haliartus possessed a small, but fertile, plain, and its low, fortified acropolis contained a temple and several other public buildings. Onchestus, to the east of Haliartus, occupied a low ridge between Copais and the Theban plain. Its significance was religious, political, and symbolic in nature. In the 6th century BC it was the seat of an amphictyonic league composed of several major Boeotian cities. There the Boeotians celebrated their unity by a common festival dedicated to Poseidon. Onchestus reached its acme in history as the political capital of the reestablished Boeotian Confederacy of the Hellenistic period.

East of Onchestus lay Thebes, the principal city of the eastern basin and the capital of Boeotia. It controlled the large, fruitful Aonian plain in the north, and lay near both the Asopus valley to the south and the Teneric plain to the west. Its rich and open land, combined with ample and constant supplies of water, nurtured a thriving agricultural economy. The acropolis of Thebes was the low plateau of Cadmea, which has been the primary seat of inhabitation from prehistory to today. Remains of the city, however, are few. Nonetheless,

Thebes played a distinguished role in Greek affairs throughout history, and at one point in the 4th century BC it was the greatest power in Greece.

Emanating north of Thebes was a road leading to Acraephia of which little remains, and a much more important route passed to the northeast of Acraephia to Aulis and Chalcis. Aulis was the best harbour in Boeotia. It was the point where Agamemnon sacrificed Iphigeneia before sailing to Troy, and from it Hesiod sailed to Euboea. It was the chief harbour of Epaminondas' naval programme of 364 BC, and served as a port for two large Hellenistic fleets. Its most famous monument was the temple of Artemis and its adjacent buildings. Almost due east of Thebes is Tanagra, situated in the eastern part of the plain of the Asopus river. It is Homer's "Graia by the sea". Little is left of the city except for fragments of the circuit-wall and the foundations of a few buildings.

Plataea was located south of Thebes at the foot of the major passes over Mount Cithaeron from Megara and Attica. As the portal of southern Boeotia, Plataea was the perfect base from which to guard the passes. Though not large, its plain was capable of sustaining a city of ample size. Plataea was most famous for the decisive victory won there by the Greeks over the Persians in 479 BC. After the battle the Greeks erected the altar of Zeus Eleutherios (Zeus the Free). Thereafter, it became insignificant apart from its Panhellenic festivals, which were still celebrated as late as the 3rd century AD. Southwest of Thebes in the eastern basin, Thespiae overlooked a small region of rich river valleys beneath low hills. It had access to the Corinthian Gulf by way of Creusis and farther west by Thisbe, both separated from Thespiae by mountains. Thespiae boasts only a few ruins, for in the 19th century French archaeologists destroyed much of its walls in search of inscriptions. It survived into the time of the Roman empire as a religious centre, owing to its Panhellenic festivals of Eros and the Muses.

Boeotia was prominent throughout history, but its grandest moments came during the Classical period. It survived the Persian Wars to emerge as a united people and government. In 447 BC it created a confederacy that introduced the first effective federal body in Greek history. Having helped to defeat Athens in the Peloponnesian War, Boeotia rose to ascendancy in Greece during the Theban hegemony. In the Hellenistic period Boeotia suffered decline, but rose again during the Roman empire. The Middle Ages saw the spread of Christianity through the region and economic prosperity that even innumerable wars never entirely destroyed.

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BOOKS AND READERS

The two main pre-alphabetic scripts in use in the Bronze Age, Linear A (used *c.*1800–1450 BC in Minoan Crete) and Linear B (attested in Mycenaean inscriptions from the 13th century BC), seem to have been exclusively employed for administrative recording. Writing and reading were confined to professional scribes.

In the early 8th century BC the alphabetic script was adopted in the Greek world from the east (the first examples date from *c.*740 BC). The absence of writing for many centuries had encouraged the oral mode of literary production, which the Homeric epics seem to reflect. Although writing and communication with written messages were known, Archaic Greece was predominantly a society of oral traditions (law, religion, history). Poetry (epic or lyric), whether orally composed or written down, was meant to be heard and was orally performed. Yet we hear of editions of the poems of Sappho and Alcaeus arranged in a certain order, and we assume that there were books of them owned by the performers and by the poets themselves, who appear to have known each other's work. From the 7th century BC papyrus was used for writing purposes, becoming the main writing material around 500 BC. The Greek word for "book" (*biblion*) means papyrus strip, thus suggesting the primacy of the papyrus roll as a book form. Other writing materials included leather, and Herodotus (5. 8) mentions that the Ionians used leather rolls. Books were scarce, afforded only by magistrates such as the tyrants Polycrates of Samos and Pisistratus of Athens, who are said to have owned collections of books (Athenaeus, 1. 3a).

The papyrus plant grew mainly in Lower Egypt, especially the Nile valley, and from a very early date it served writing purposes in Pharaonic Egypt. Its manufacture involved cutting the stem into short segments, slicing the white pith into thin strips, and placing them vertically parallel to each other; over this layer a second layer of strips was placed horizontally; the two layers were compressed so as to become one, and the sheet was then smoothed with a stone. Afterwards dried sheets were glued together to form a roll, usually 6–8 m long; rollers often protected the outer sheets. The scribes normally used for a writing surface the inside of the roll, where the fibres are horizontal, allowing the pen to run smoothly along them. The text was arranged in columns (*selides*) of varying height and length. The writing was in majuscule script without word division, punctuation, accents, or breathings. Titles, mostly later inventions, and authors' names usually came at the end of the roll. The lack of a law of copyright made forgeries common. Divisions into books largely reflect divisions into rolls and are artificial for all Greek writers before the 4th century BC. The reader held the roll with both hands, rolling up and unrolling so that the required portion of text was in front of him. Reading in antiquity amounted to reading aloud. It was difficult to make references or to quote with precision. Hence ancient readers usually quote from memory.

In the Classical period the use of books (i.e. rolls) became widespread, as the testimony of a number of Attic vases clearly shows. Intellectuals wrote down their treatises and published them by reading them aloud or having them read out (*ekdosis*) by a literate slave (*anagnostes*). Socrates in the *Phaedo* (97b–98b)

says that he heard read a book of Anaxagoras and subsequently procured it to read it by himself. Protagoras also published his *On the Gods* by having it read aloud. There is evidence for an organized book market, and we learn that Anaxagoras' works were available for a drachma (*Apology*, 26d). The plays of Aeschylus, Sophocles, and Euripides were also available in book form. Dionysus in the *Frogs* (52f.) reads Euripides' *Andromeda*, and Aristophanes' audience is able to consult books (*Frogs*, 1114). The dissemination of book culture in the 4th century BC made a teacher of writing and reading indispensable for the education of children (*Protagoras*, 325d–e). Although literacy levels varied, the habit of reading now became widespread, especially in higher social classes. Socrates praises a young man who spends money on books, and Aristotle was nicknamed "reader", since he used to study his books in solitude. The earliest surviving papyri with Greek texts (Timotheos, *Persai*, and the Derveni Papyrus) date from the end of the 4th century BC.

Until the end of the Classical period there were only private collections of books, often owned by an erudite individual such as Speusippus, Aristotle, and Arcesilaus or by a private institution such as the Academy and the Lyceum. In the 3rd century BC public libraries were built by the Attalids and the Ptolemies, in Pergamum and in Alexandria respectively. In the Museum in Alexandria the foundations were now laid for the editing of Classical texts. Such scholars as Zenodotus, Aristophanes of Byzantium, and Aristarchus showed critical acumen in their editions of Homer, Hesiod, and the lyric and dramatic poets. They invented critical signs to indicate spurious verses and repetitions; they marked the metrical cola; and they devised aids to the reader (e.g. punctuation, change of speaker). Their work led to a general rise in the standards of book production. Division and arrangement of the contents into books were now employed by the authors themselves. Greek books circulated widely in the Roman world, featuring in private libraries of intellectuals such as Cicero and Atticus. The Bible was now translated into Greek for the Greek-speaking Jews.

Book culture flourished in late antiquity and most surviving papyri come from this period. The availability of books encouraged the making of anthologies, miscellanies, and encyclopedic works. Scholars such as Galen, Aulus Gellius, and later Origen and Eusebius, hired secretaries to help them in compiling their books. Parchment now became available as a more durable alternative to papyrus. But the appearance of the codex, the ancestor of the modern book, as an alternative book form was the most important event in book culture. A codex consists of a number of wide sheets folded vertically in half and then stitched together so that a single sheet forms two leaves. The earliest codices date from the late 2nd century AD. For some time rolls and codices coexisted (3rd–4th centuries AD), but soon the codex prevailed and became the usual book form. Initially there were codices of both papyrus and parchment, but parchment soon became dominant. The establishment of the codex form was presumably due to its adoption by Christians. Early codices contained almost exclusively Christian texts. Systematic translation from rolls to codices took place in the 4th–5th centuries AD. The earliest extant codices are the famous Codex Sinaiticus and Codex Vaticanus of the Bible (4th century). Christians developed their own literature, and Christian centres of learning were established (Caesarea, Alexandria). Important collected editions appeared, such as Andronicus' edition of Aristotle, Thrasyllus' arrangement of Plato's dialogues, Porphyry's edition of Plotinus' treatises, and textbooks with selections of Classical authors for school use.

The codex was the usual book form in the Byzantine period, but the roll survived in the transmission of liturgical texts and in the imperial chancery. The dominant Christian culture affected book production. Prayer books, bibles, and psalters enjoyed the widest readership. The lower classes tended to read hagiographic literature, collections of patristic sayings, and popular stories (e.g. *Physiologus*), while the middle classes may have also read chronicles, history (e.g. the *Patria Constantinopolis*), and novels. Books of practical use, for example medicine, astrology, and of course school books, circulated widely. The Byzantine intellectual elite was largely preoccupied with Classical texts, thus ensuring their preservation for posterity. Ancient treatises were the models for the Byzantines – from science to literature. Books were expensive, and, at least until the introduction of paper, only the affluent could afford them. Shortages of writing materials account for the use of palimpsests, i.e. manuscripts where the original was erased and a new text written over it.

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See also **Libraries; Literacy; Papyrus; Scholarship**

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BOTANY

Ancient Greek literary writers often mentioned plant names, but without revealing whether these meant much to their audience. Theocritus and Sappho decorated their verses with pretty names of plants, and a famous fragment of a play by Eupolis has a chorus of goats declaiming a (very inaccurate) list of the plants that they were supposed to eat. There is nothing to show whether ancient Greek countryfolk had a profound knowledge of edible and medicinal wild plants.

Theophrastus (*c.*371–*c.*287 BC), colleague and successor of Aristotle, and the author of the *History of Plants* and *Explanations of Plants*, is regarded as the father of botany. He was a busy teacher at the Lyceum with many other interests, who probably

had little time for botanical research. He seems to have known (at first or second hand) some 300 out of the 6000 species of wild plants that can today be found in modern Greece.

To judge by the *History of Plants*, Greek botanists were interested in five aspects of botany: (1) the structure and physiology of plants – for example, whether roots and shoots grow simultaneously; (2) the cultivation and propagation of field, orchard, and garden crops; (3) the occurrence and uses of wild trees; (4) drugs and medicinal herbs; (5) the occurrence of plants in particular localities.

On drug plants Theophrastus overlaps with the contemporary or earlier corpus of works associated with Hippocrates, later to be developed by Dioscorides and Galen, the great physicians of the early Roman empire. Herbs, gathered by professional herbalists, were evidently articles of commerce; Crete, with its many endemic species, was a special source.

Theophrastus does not stand alone: he mentions earlier botanists whose works do not survive. Many of his known successors were Roman rather than Greek. The technology of cultivation was taken up with greater success by Columella, Pliny the Elder, and Palladius Rutilius.

Ancient Greek botany laboured under many difficulties, beginning with that of identification and taxonomy. Botanists need to know which species of plant they are talking about. Writing a workable description of a plant, one from which someone else can recognize that plant, was a skill not far advanced in ancient times. Theophrastus mentioned brief points of difference between two or three similar species, but rarely, if ever, gave enough information to identify an unknown plant. Dioscorides attempted the systematic description of plants; in an early Byzantine manuscript his descriptions are accompanied by illustrations copied from a lost work by Crateuas; fewer than half of these actually describe or depict a recognizable plant. Botanical illustration was a skill known to the ancient Greeks, but illustrations were not accurately reproduced until the invention of woodblock printing in the Middle Ages. Without the means of identifying plants and explaining that identification to others, the science of botany could not get far. The ancient physician often did not know what exactly he was prescribing for his patient.

Even worse was the ancient Greek vice of theorizing from small amounts of data. Although this led to some success in astronomy, it could not cope with the complexities and irregularities of plant life. *The Explanation of Plants* poses such vaguely physiological questions as "Why are not all plants more fragrant in hot countries?" Its "answers" lead into a morass of abstraction and generality, Aristotelian logic at its worst, having virtually no contact with actual plants. There is no sign of the patient collection, verification, and comparison of data from which real insights might have been gained; nor of the procedure of producing a theory from existing material and then seeking fresh data with which to test it.

Theophrastus collected information about tropical plants from remote parts of the world. But he valued information not for its own sake but in order to illustrate whatever theory he was writing about. Not much of a traveller, he relied on what others told him, and displayed little interest in verifying his data. He put into circulation some misinformation that is still current: for example, the notion that ivy destroys the tree on which it grows, which he could have disproved without leaving Athens.

However, he has some genuine insights into the behaviour of plants, noticing, for example, that firs like shade and pines like sun. At one point he attempted an ecological account of an actual place, the seasonal lake of Copais, with its unique reeds, and special craft of musical-instrument-making.

Evidence suggests that the ancient Hebrews and Romans were better botanists than the Greeks: much of Theophrastus' material comes from Italy, where he had never been. This conclusion, however, depends on surviving writings, which are presumably only a small fraction of the literature that once there was. (In other fields, such as engineering and shipbuilding, the Greeks' achievements were far greater than we would suspect from the written evidence.)

By way of the Romans, the Byzantine *Geoponika* of the 10th century AD, and the Arabs, Theophrastus' legacy regarding cultivated plants was carried forward to initiate modern agricultural writing, in the form of the works of Alonso de Herrera in the 16th century. Ancient herbalism continued into Byzantine times, as shown by the attention paid to Dioscurides and his illustrations. This is the source of the post-medieval western tradition of herbals, which developed into modern botany. It was also an impetus to the development of modern plant taxonomy, as early modern botanists visited Greece and other countries to try to identify and recover Dioscurides' drug plants. The herbalistic tradition continues in Greece to this day: *Votanotheriapeutiki*, a herbal by I.K. Prinea and A.M. Sphakianaki published in Athens in 1980, is explicitly in the Dioscuridean tradition.

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BULGARIA

Greek colonization of the Bulgarian coast, part of the region known in antiquity as Thrace, began in the 7th century BC with Miletus leading the way. The main sites were Apollonia (modern Sozopolis), Odrysos (modern Varna), Anchialos (Pomorie), Krounoi (Balchik), Naulochus (Ozbar), and Mesembria (Nesebar). These cities led an unexciting if prosperous existence, trading wine and salt in exchange for grain and livestock. Philip of Macedon conquered the interior of Bulgaria and founded Philippopolis (modern Plovdiv) in 342 BC. Only his more powerful successors kept control of this area, and only some stubborn campaigning in 28 and 29 BC by Marcus Licinius Crassus, son of the triumvir, brought the Roman frontier as far as the Danube. Thrace remained a client kingdom until the reign of the emperor Claudius (AD 41–54) when it was incorporated into the Roman empire. For the next 150 years the southeastern part of Europe prospered. More cities were founded in the interior, and it is clear from the evidence of inscriptions that Greek rather than Latin was the lingua franca

in most of Bulgaria except for the Danube frontier. Ovid, although actually writing about Tomis in Romania, gives a fair picture of the hybrid culture of the Roman era, well preserved in Bulgarian archaeological museums.

Barbarian pressure on the Danube frontier began towards the end of the 2nd century AD in the reign of the emperor Marcus Aurelius (AD 161–80), although at the beginning of the century Trajan had advanced Roman power across the Danube into Dacia. From AD 200 to 600 there was endless pressure on this frontier. Many barbarians passed into the Roman empire. On the other hand Greek influence spread to new cities of the interior such as Marcianopolis, Diocletianopolis, Nicopolis ad Istrum, and Nicopolis ad Nestum. A fair portrait of life in some of these cities and Greek cities on the coast is given by the 4th-century historian Ammianus Marcellinus and the author of the *Historia Augusta*. In the 6th century the western Balkans were devastated by barbarian invasion, but imperial armies were still active in Bulgarian territory in close proximity to Constantinople.

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BUREAUCRACY

For most of antiquity, Greece remained a series of separate states, often in conflict. Hence, tracing patterns of bureaucracy is a difficult process at best. The Greek city states required administrative machinery to coordinate and produce documents, collect taxes, preside over laws, and maintain order. As a result, the development of a bureaucracy, or a core of professionals dedicated to the minutiae of state administration, became a requisite in nearly every state. City states developed similar patterns of administration. Increased efficiency, accompanied by advances in travel, produced government reforms on every level in almost every state. Greece was the first civilization effectively to develop a bureaucracy that incorporated those members of society who fulfilled the qualities of servitude and learning required to meet the needs of its citizens.

The duties of administration, responsibilities for the execution of those duties, and those permitted to function as part of the administration varied from state to state and period to period. Membership in many organizations was limited, by definition, to citizens. Affairs of the state and benefits that accompanied civil service were restricted to individuals belonging to a socially accepted group. Hereditary affiliation was the only means of inclusion within ancient Greek society. In some regions, however, slaves were employed for labour-intensive functions such as recording. Differences between the staffing of local governments were not important, however, since the benefits of government went to its citizens and to no one else.

The establishment of a bureaucracy indicated the creation of an institution that outlived its specific function. Although they varied by time and location, ancient Greek society became dependent upon the services provided by civil servants. The bureaucratic framework relied on flexibility to meet evolving demands in a changing society. In its most basic sense, the bureaucracy facilitated distribution of obligations and benefits that accompanied citizenship. Through this distribution, Greek administrators promoted equity among the population and governmental advantage. The result of the Greek bureaucratic system was a society increasingly tied to local rule, and a general feeling of benevolence between government and citizen.

During the Archaic period public authority lacked direction and effectiveness. Evidence for this is found in Homer's *Odyssey*. City-state governments in this period failed to convene for decades. Citizenship indicated eligibility for public service, and, in return, society expected career terms of service from those elected. Other than the central composition of the government, usually a king, a council, and an assembly, little else is known about the daily functions of the government or its administration during the 8th century BC. With the limited number of persons involved in ruling a city state, there is likely to have been little interaction between ruler and subject, and little mutual concern.

Following the Archaic period, two events indicate the improbability of an established Greek bureaucracy. First, accounts of the Seven against Thebes suggest that the requisite conditions for a coalition – primarily an established bureaucracy – were missing. Second, Athenian intervention in the affairs of Miletus in 450 BC and Samos in 442 BC was limited to physical and not political domination. Athens lacked the required administrators to promote its policies and intentions. In both cases, Greece lacked the tools to capitalize on the success of its military campaigns.

Evolving through the ages of monarchy, aristocracy, and tyranny, three periods void of successful bureaucratic systems, democratic reforms in government produced similar changes in administration. Magistrates became crucial figures in most societies. Civil servants were elected annually and were not ordinarily eligible for reelection. Cities and states were administered by those professional civil servants who possessed no real power, but dedicated themselves to the execution of their duties. In any given city state, hundreds, even thousands of magistrates' positions existed, allowing a civil servant the opportunity to serve in several positions simultaneously without repeating a post assignment. Lower magistrates received a state-provided salary, while higher-ranking officials often came from wealthy families, demanding no compensation. It was during the 2nd century BC that magistrates achieved prominence within Greek society, and a permanent, professional core of civil servants was established.

By the 3rd century BC Greek bureaucratic reform produced more widespread and tangible results. In Thrace king Seuthes III organized the country on a Hellenistic model. He divided his kingdom into towns, provinces, and regions. At the lower levels local rule provided direction for daily government functions, while a smaller percentage of natives participated at the higher levels. Each level took direction from higher authorities, while preserving the appearance of self-rule.

In Egypt Hellenistic rulers inherited a bureaucracy many centuries old. Different from the civil servants that perpetuated the daily activities of the Greek city state, Egyptian bureaucrats often performed their scribal or accounting duties for their entire lives. Scribes were often illiterate, transferring the symbols from one sheet to the next, failing to understand their

significance. Accountants, who could perform basic arithmetic, were likewise illiterate, and ignorant of their greater significance within society. Trained to serve the pharaohs, Egyptian civil servants introduced a new standard of detail to administrative duties. The success of the Egyptian bureaucratic model prior to the Greeks is questionable, since few civil servants recognized their job significance or benefited from their selfless service. During the period of Greek rule an abundance of trained civil servants, both native and imported, permitted the division of Egypt into cantons, districts, and villages that could be extraordinarily well controlled. Traditionally, Greek civil servants filled higher posts in the empire than their native counterparts. Accountability throughout Egypt achieved unparalleled proportions during the 3rd century BC.

The Ptolemaic kingdom was the most effective political organization to emerge from the Greek-speaking world. The constitution of the empire provided the basis for unequalled administrative success. The Ptolemies oversaw the Macedonian-Greek upper class and the Egyptian fellahin, a group dedicated to the patient and meticulous work of serving the pharaohs. Rather than replace the Egyptian bureaucratic system, the first two Ptolemies opted to augment the existing system with Greek reforms. The combination of a disciplined workforce and efficient administration produced the most effective government of the ancient world. Reforms in government administration and accountability in Ptolemaic Egypt provided the standard by which bureaucracies would be measured for decades. It was also during the 3rd century BC that bureaucratic service became not only an acceptable profession for the upper class, but an enviable one.

During the 2nd century BC Greek bureaucratic reforms were introduced throughout the eastern and western empires. Mithridates I emulated the Greek system, and employed Greek civil servants in large numbers. Iranian leadership instituted Greek reforms at the local level, and evidence of Greek bureaucratic influence appeared as far away as Kurdistan and India. The Greek model provided the basis for efficient administration of empires that continued to grow in size and complexity. By emphasizing self-rule, central governments freed themselves of the tedium associated with accounting and recording at the local level. The division of empires into subordinate organizations increased accountability and ensured the communication of supreme mandates.

Few changes occurred in Greek bureaucracy following antiquity. The Greek administrative model spread widely, appearing as the basis for the Roman system of administration, defining the Byzantine model of government, and finding great favour centuries later in the courts of Europe. Kingdoms in both east and west assimilated patterns of Greek government in their expanding and contracting empires.

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BURIAL PRACTICES

The earliest burials in Greece date from the Mesolithic period (8th millennium BC). In the cave of Franchthi (Argolid) were found the undisturbed inhumation of a young man and several disturbed burials, together with two cremations thought to be the earliest in Europe. There are many more instances of Neolithic burials (5th–4th millennia BC). The standard practice was primary inhumation in pits, though secondary inhumation (after the body had been exposed or provisionally buried until the flesh had disintegrated) and cremation are also attested. Formal cemeteries are first found in the Late Neolithic (Kephala on Keos), but are not common, or indeed large, before the Early Bronze Age (3rd millennium BC), in the Cyclades and Attica; from then on, the practice of burying the dead within the house is mainly restricted to children. Monumental tombs for multiple burials (family, clan, or tribe) appear for the first time in the Early Bronze Age, but only in small numbers and certain areas (e.g. Leucas and Crete). Grave goods, which in the Neolithic were limited to simple pots, stone tools, or jewellery, become much more varied and reflect the socioeconomic differences in the community, the wealthy graves containing bronze weapons, clay and stone vases, gold and silver jewellery, and figurines of clay or marble. There is some evidence of ritual at the grave: vessels deposited on top of the grave, libations poured to the dead, and the ritual drink or ''toasting'' the dead, a custom better known from the Mycenaean period.

At the time of the first Minoan palaces (2000–1700 BC), the burial practices in Crete continue mostly unchanged, though jars (pithoi) or coffins (*larnakes*) were used more frequently. On the less prosperous mainland, burials were usually made within the settlements, in pits, stone cists, or in *pithoi*, and were scantily furnished with grave goods. Burying under tumuli, the only form of communal burial in this period, was an aristocratic practice, possibly restricted to particular tribes or clans, and largely confined to Messenia.

The Mycenaean period (1600–1100 BC) saw the change to the advice of multiple burial. Primary inhumation in family tombs became the norm. Single burials were uncommon and cremation an exception before the end of the period. The monumentality of the grave, the elaboration of the burial rites, and the quality and quantity of grave goods varied in relation to the status and wealth of the deceased in what was now a highly differentiated society. The earliest aristocratic cemeteries, Grave Circles A and B at Mycenae (1650–1550 BC), were circular stone enclosures, containing the graves of men, women, and children. The later, and richer, graves were deep shafts in which a number of dead were laid, and lavishly adorned with gold, including death masks for some of the men, headbands and shrouds decorated with gold discs for the women. Men were also provided with many weapons, and with drinking cups of precious metals, and women with gold jewellery. Later princely tombs were mostly of the tholos (beehive) type with corbelled vaults. The most monumental

tholos tombs were built at Mycenae in the 14th and 13th centuries BC. Aristocratic funerals seem to have been lavish affairs, with funeral processions to the grave, the dead on horse-drawn chariots, the consumption of funeral meals, and the sacrifice of animals, sometimes even horses. Commoners were buried in larger cemeteries and simpler tombs dug in the rock, with a passage leading to a chamber (chamber tombs). Here multiple burials were often made over a period of several generations; earlier burials were pushed aside to make room for new burials after the flesh of the dead had disintegrated.

The so-called Dark Age (*c.*1200–700 BC) witnessed the reversion to single inhumation, in pit- or cist-graves. This is now believed to have been the result of the depopulation and fragmentation of society which followed the destruction of the Mycenaean centres, rather than of the arrival of newcomers. Only in some regions (Crete and to a lesser extent Messenia and Thessaly) was multiple burial in chamber or tholos tombs retained. During the Protogeometric and early Geometric periods (1050–800 BC) Attica and a few other regions (especially Crete) adopted cremation to the exclusion of inhumation, particularly for adults, children being mostly inhumed. But in the 8th century inhumation made a full comeback in Athens, and for the rest of antiquity the two rites then coexisted, though there were differences from region to region and period to period, cremation being more common than inhumation for adults in the Archaic period (7th–6th centuries BC), inhumation more popular in the Hellenistic period (4th–1st centuries BC). The two practices were a matter of choice and not of status or wealth. Inhumation graves were normally single burials, in simple shafts or pits, sometimes lined with stones or covered with tiles, or in containers such as sarcophagi, clay tubs, or pots (particularly for children). Cremation burials were normally placed in urns of clay or metal, which were often placed in lidded stone boxes. The graves were surmounted by mounds (tumuli) and often by grave markers. In the Archaic period the mounds were large and the grave markers could be tall sculptured gravestones or even over-lifesized statues (*kouroi*). In the Classical period, the age of democracy, laws were passed at intervals to curb the ostentatious display of wealth and to control the expense of funerals, and so the mounds, judging certainly from representations on vases, were much smaller, while in Athens at least sculptured stone grave markers seem to have gone out of fashion for most of the 5th century. Family plots and *peribolos* (precint) tombs (tombs built of bricks or stones above the family plot) were used in Athens in the Classical period, but the grander type of built tomb was forbidden soon after its introduction in the late 5th century BC. Impressive examples of such tombs, with temple-like facades and sometimes vaulted and richly painted interiors, were built by the Macedonian kings and aristocracy from the 4th century BC onwards. They display a monumentality and wealth of grave goods (witness the unlooted tombs of Vergina) not found since the Mycenaean period.

The ancient Greek funeral as a three-staged process was already established by the time of Homer. The laying in state of the dead, or *prothesis*, most likely took place in the courtyard of the house after the ritual washing of the corpse by the women of the household. The dead was laid on a bier, wrapped in a shroud (or wedding dress in the case of unmarried or recently married women), the head supported by pillows and adorned with a crown. An important part of the *prothesis* was the mourning and singing of dirges, both formal (*threnoi*), sung by professional mourners, and improvised (*gooi*), sung by friends and members of the family. During the *ekphora* the dead was taken to the place of burial, on a horse- or mule-drawn cart (though Geometric representations, in keeping with heroic ideals, show chariots), and accompanied by a procession of mourners and sometimes a pipe-player. Less is known about the third stage, or deposition: a libation of wine was made to the dead, grave goods (personal belongings: strigils, mirrors, jewellery, toys, or vases) were placed in the grave or in special offering places or ditches nearby. Ceremonies were held during which burnt remnants of food, including the bones of small animals or birds, were also deposited. After the funeral, a funerary banquet (*perideipnon*) in honour of the deceased was held in the deceased's house. In the days and weeks which followed, libations and offerings were made at the grave by relatives of the deceased, particularly the women. Special rituals were the *trita* (third-day rituals), *enata* (ninth-day), and *triakostia* (thirtieth-day). Subsequently rituals were held to mark the annual anniversary or special occasions.

Funerary customs did not substantially change during the Hellenistic and Roman periods, though the graves are generally poorly furnished (the most common offering is the fusiform *unguentarium*, a container for ointment). The spread of Christianity naturally had repercussions on funerary practices. One important change was the disappearance of cremation. During the Byzantine period the dead continued to be buried in single graves, though these were now usually located in graveyards adjacent to, or inside, churches and chapels. The graves themselves were cists made of stone or brick, and marked with a grave slab with a cross on it, or with an actual cross. However the earlier custom of including vases and other objects, and even the coin which had previously been intended for paying the ferryman Charon, is found in Byzantine graves, and reflects the continuity of the pagan custom of providing for the passage from life to death.

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See also **Death**

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BYZANTIUM

City on the Bosporus, later known as Constantinople and Istanbul

Byzantium was founded at the southern end of the European shore of the Bosporus by Megarians, probably in association with other colonists from the Peloponnese and central Greece, in 668 or 659 BC according to respectively Herodotus (4. 144) and Eusebius (*Chronicle*). Its name is of Thracian origin, legend claiming the city's founders to be Byzas, son of the nymph Semestre or a Thracian king, and a certain Antes. Like any other settlement along the Bosporus and, to a lesser extent, the Hellespont (Dardanelles), Byzantium could potentially control maritime traffic from the Euxine (Black Sea) to the Aegean and the land route between Europe and Asia (Polybius (4. 38) details the city's mercantile advantages). Its defensible position, however, was such that the earlier Megarian colony of Chalcedon (now Istanbul's Asiatic suburb of Kadiköy) on the opposite shore of the Bosporus came to be known as ''The City of the Blind''. On a triangular peninsula bounded to the south by the Propontis (Sea of Marmara), to the east by the Bosporus, and to the north by the Golden Horn (a 7.2 km inlet which could serve as a protectable natural harbour), the city had only two drawbacks, exposure to the European hinterland to the west and a lack of drinking water. Both these were remedied in later centuries by the construction of increasingly massive walls and a system of aqueducts and vast open and underground cisterns.

The colonists settled on the eastern tip of the peninsula, which sparse archaeological finds suggest had been occupied as early as the 2nd millenium BC. Apart from traces of shrines to Aphrodite, Apollo, and Artemis between the churches of Hagia Sophia and Hagia Eirene, superimposition of later buildings has precluded the discovery of the Greek city. According to literary sources, however, a north–south wall of about 2 km with 27 towers and several gates enclosed to the east military headquarters, an agora, temples, sanctuaries (most notably to Zeus, Poseidon, Athene, and Dionysus), cisterns, a gymnasium, and a theatre.

Little is known of Byzantium's history until 512 BC, when the city came under Persian rule. Except for the period of the Ionian Revolt (499–494), this persisted until 478 when the Spartan Pausanias expelled the occupying garrison, only to be himself recalled by his government for alleged treason. Thereupon Byzantium joined the Delian league, although, when the Persian threat had receded and Athens was treating the member states as its empire, Byzantium twice attempted revolt (440–439 and 411–408). Its annual contribution to the league of 15 talents indicates a wealth at this time which was derived mainly from tuna fishing, tolls imposed on shipping in the Bosporus, and the resources of both European and Asiatic holdings. After the Battle of Aegospotami in 405 it came under Spartan control, but numismatic evidence proves that it joined the anti-Spartan sea league after the Battle of Cnidus in 394. Formally an ally of Athens from *c.*378, Byzantium revolted again in 357 in support of Rhodes, Cos, and Chios. Subsequently it came increasingly under Macedonian influence until, in alliance with Athens once more, it changed course and successfully held out against Philip II in 340–339 (to commemorate Hecate's succour at this famous siege the Byzantines put on their coinage her symbols of crescent moon and star, which were later adopted by the modern Turkish state). After the Battle of Chaeronea in 338 Byzantium came again under Macedonian sway, and in the 270s suffered severely from Galatian depredations.

In the following century its economic recovery was considerably aided by the privileged status granted to it as a reward for supporting the Romans during the Macedonian wars. This status was retained until Byzantium backed Pescennius Niger in his struggle for imperial power with Septimius Severus in AD 193–95. After a siege of two years, graphically and exaggeratedly described by Cassius Dio (75. 10–14), the Byzantines capitulated. Severus, however, rebuilt their devastated city, approximately doubling its area by constructing a new north–south wall about 800 m westward of its Greek predecessor from a point just east of the present Galata Bridge. Little of the layout of the Severan city is known, but a theatre and baths were built, the hippodrome commenced, and, probably, porticoes added around the agora from which a porticoed avenue led to the wall. (For the later history of the city, its topography, and monuments, see the entry on Constantinople.)

After an aborted attempt at building a new city in the Troad near the ancient Sigeum (at a location now known as Yenişehir) just south of the entrance to the Hellespont, Constantine I chose the site of Byzantium for his new and Christian capital. The city's perimeter was marked out on 8 November 324 and the dedication took place on 11 May 330. It is not certain what the emperor wished its name to be. Although it was most commonly referred to as Constantinople (''City of Constantine''), the Latin poet Publius Optatianus Porphyrius used (in *Carminae*, 4. 6) the expression ''New Rome'' as early as 324/25 (Cassiodorus' account of Constantine inscribing *Secunda Roma* on a marble column is, however, almost certainly legendary). Thereafter comparison with the ancient capital and rhetorical references to ''New Rome'' were increasingly favoured, but the earliest surviving attestation of this as an official name appears in Canon 3 of the First Council of Constantinople in 381.

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See also **Chronology**

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C

CALABRIA

Region of southwest Italy

Calabria was colonized by the Greek city states from the 8th century BC. The south Italian colonies constituted ''Greater Greece'' or, as it is most commonly referred to, Magna Graecia. The establishment of Greek colonies in south Italy and Sicily was only the conclusion of a long period of contacts, from the end of the 2nd millennium BC, between the Greeks of the mainland and the islands, who were seeking new markets, and the indigenous people in Italy. The colonization was extremely successful, especially when compared with the trading settlements of the Phoenician and Carthaginian settlers, which lacked the permanent character of the Greek colonies. The expeditions were led by aristocratic families. There was close cooperation with the mother city, which provided active support for the colony. Rapid economic and cultural development therefore soon followed.

Sybaris, founded in the late 8th century, became exceptionally wealthy and was a byword for luxurious living, to such an extent that Athenaeus reports a belief that some of the inhabitants had wine-cellars near the seashore, into which wines were sent through pipes from their country estates. In 510 B.C. the city was destroyed by its rival Croton. In 444 B.C. on the initiative of Pericles Thurii was founded on the same site; the famous town-planner Hippodamus of Miletus designed the new city. One of the most famous Greek cities was Rhegium (modern Reggio di Calabria), an Ionian colony established by the Euboeans. Many philosophers were associated with the region of Magna Graecia and Calabria in particular, such as Pythagoras who emigrated from Samos to Croton, Timaeus in Locri, Parmenides and Zeno in Elea. The philosophical system of Pythagoras deeply influenced the cultural life of the colonies. Many of his ideas were enhanced by the Orphic cults that flourished in the area. Recent finds of gold coins with incised text found in tombs have increased our knowledge of the influence of the Orphic cult. Modern museums exhibit many traces of a glorious civilization and the archaeological sites are often breathtaking. Two of the most famous ancient statues, the Riace bronzes of approximately the 5th century BC, were found in a shipwreck in 1972, and are now exhibited in the museum of Reggio. Rhegium was important culturally. The sculptor Pythagoras, the poet Ibycus, and the historians Hippys and Glaucus were associated with it.

Locri was a colony established by Dorians from Locris. The poet Xenocrates was associated with Locri; he devised the ''Locrian harmony'', a new type of musical composition that depended upon flutes rather than lyres. The Hellenistic female poet Nossis was also associated with Locri. She is known to us through some poems in the *Palatine Anthology*, and is believed to have written mainly epigrams in the sapphic metre. Ruins of an Ionic temple have been found near Locri, as well as a site associated with the cult of Persephone. Temples in the Ionic style are rare in Magna Graecia, where the Doric style prevails. A common feature of many cities in the area is the extramural sanctuary, such as the Heraion near Croton. Caulonia was a colony established by Locri that was destroyed in the wars between Pyrrhus and the Romans.

The region was conquered by the Romans by 212 BC and the cultural map changed significantly in the following centuries. Under Diocletian (AD 284–305) Calabria and Apulia formed one province, and until the 7th century the name Calabria designated all of southern Italy.

ANDROMACHE KARANIKA-DIMAROGONA

See also **Magna Graecia**

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CALENDAR

Most ancient Greek states had their own individual calendars, often more than one for different purposes (e.g. civil and religious) as in many countries today (e.g. civil, religious, financial, scholastic). Like all calendars, the Greek suffered from the incommensurability of the units commonly used – solar day, synodic month, and tropical year. The solar day is the slightly variable period between successive apparent passages of the sun around the earth, and was usually taken to commence at sunset. The synodic month is the substantially variable period of a single cycle of the moon's phases as seen from the earth, and was deemed to commence with the appearance of the crescent of the "new moon". The tropical year is the period between successive passages of the sun across the celestial equator in March (the vernal equinox), although the dates of its commencement were extremely varied. The week of seven days, possibly inspired by Babylonian hebdomadism, entered the Graeco-Roman world from the Jews only in the 1st century BC, at the end of which the practice of naming its days for the planets, as found in most European languages today, was already being established (the Hebrew numbering of the days, however, persisted in Greek).

All ancient Greek calendars were originally, and most remained largely, lunar. Months were named after festivals or deities and one was intercalated periodically to achieve approximate correspondence with the solar year. Most surviving calendaric information relates to Athens, which used an astronomically controlled lunar calendar; a festival or archon's lunar calendar (which through manipulation for political and religious reasons (mocked by Aristophanes in *Clouds*, 615–26) was often seriously at variance with the former); and a "prytany" calendar (used in dating governmental documents) which was based upon the annual presidential terms of the ten tribes in the *boule* (council). The years of the first two calendars were divided into 12 months of 29 or 30 days with a month being repeated when deemed necessary. The first day of each month was called the "new moon"; the next nine were numbered forwards as the "2nd to 10th of the waxing month", and the next nine simply as the "11th to 19th"; the 20th and 21st were called respectively the "20th" or the "earlier 10th" and the "10th of the waning month" or the "later 10th"; the 22nd to 28th were counted backwards as the "9th to 3rd of the waning month"; and the last day of the month was called "the old and the new", leaving the 29th in a 30-day month to be the "2nd of the waning month". Years were named after the eponymous archon (and in other states after other officials, priests, etc.). For the later numbering of years in a series, i.e. eras, see the article on Chronology.

Greek calendaric reform based upon cycles of years was made possible by the astronomical discoveries beginning in the 6th century BC with the sphericity of the earth, the obliquity of the ecliptic, etc. and, in the 4th century, by the theory of Eudoxus (which was refined by Callippus) of sun, moon, and planets moving in concentric spheres around the earth. Thus sometime before 432 the cycle of the *octaeteris* (cycle of eight years) was worked out by which the intercalation at intervals of three 30-day months during a period of eight lunar years made the period roughly synchronous with eight tropical years. The famous reform of Meton and Euctemon at Athens in 432 (of which not all the details are known) devised a more accurate cycle of 19 tropical years and 125 30-day ("full") and 110 29-day ("hollow") months. Around 100 years later Callippus proposed a cycle of 76 years which is one day shorter than four of Meton's cycles and thus accords more closely with astronomical phenomena. Later cycles of 2484 years (Aristarchus, who hypothesized heliocentricity) and 304 (Hipparchus) are also known, but, with the exception of the *octaeteris*, there has been much debate as to what extent any were used for civic as opposed to astronomical purposes.

In Greece itself states largely kept their own calendars into the early Roman period, some even persisting with the *octaeteris* until as late as *c.*AD 200. The conquests of Alexander, however, introduced over much of the eastern Hellenized world the Macedonian calendar of a year of 12 followed by a year of 13 lunar months, although this gave an excess of about seven days over a period of two solar years. The Greeks in Egypt, however, adopted the local calendar and the Seleucids adapted the Macedonian to the Babylonian.

Since by the mid-1st century BC the partly lunar Roman Republican calendar was substantially and increasingly out of phase with the seasons, Julius Caesar, in his capacity as Pontifex Maximus (chief priest), invited the Greek astronomer Sosigenes of Alexandria to advise on a new calendar, which was instituted in 46 BC and became known as the Julian calendar. Sosigenes first intercalated 67 days in addition to the regular biennial intercalation of 23 days (or 22 alternately in a quadrennial cycle) after 23 February, and then, to preclude a repetition of the Republican problem, proposed the adoption of a tropical (solar) year of 365.25 days. For practicality three years were to be of 365 days' duration with an extra day intercalated (between 23 and 24 February) every fourth year. However, because of confusion caused by Roman inclusive reckoning this was done every third year until the situation was gradually righted under Augustus between 9 BC and AD 4, by which time the months had been given their present number of days. The revision of this calendar, known as the Gregorian calendar, appeared in a papal bull of Pope Gregory XIII in 1582. By it the first three centennial years in every sequence of four are not bissextile (leap) years, since the true length of the tropical year (365.242199 mean solar days) puts the Julian Calendar approximately seven days behind the seasons every 1000 years.

A.R. LITTLEWOOD

See also **Chronology**

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CALLIMACHUS *c.*320 BC–*c.*240 BC

Poet and scholar

Callimachus was one of the foremost literary scholars of the Hellenistic age and its most important poet. He produced an impressive array of works in prose and verse (the *Suda* ascribes more than 800 books to him, only a very small proportion of which has been preserved). Ingeniously taking up and reacting to earlier poetry, he became the very model of the *poeta doctus* for centuries to come.

Few details of Callimachus' life are known. He was born probably around 320 BC to a noble Cyrenean family. He may early on have had a position at the Ptolemaic court in Alexandria and could have attained his high standard of education at no better place than this. He spent long periods of his life in Alexandria and was intimately connected with its magnificent museum and royal library (both founded by Ptolemy I). Some other facts reported about him are probably fictitious: the *Suda's* statement that he was at first a lowly schoolteacher is probably the product of slanderous invention, and the evidence for his supposed feud with his (somewhat younger) contemporary Apollonius Rhodius is late and shaky (e.g. the identification of Apollonius with the target of Callimachus' curse-poem *Ibis*). Callimachus died probably around 240 BC.

Since dates for Callimachus' wide-ranging oeuvre are almost non-existent, it is best to present his work according to genre, following the order of the *Diegeseis* (summaries of his poems) preserved on papyrus (see below).

Callimachus' most famous poetic work is the *Aetia*, a collection of stories in four books relating the cause (*aition*, hence the title) and origin of certain peculiar customs and phenomena in the Greek world. Thanks to surviving papyri, this substantial work (possibly up to 6000 verses in elegiac couplets) can be reconstructed to a large extent. In the first two books (probably completed by 270 BC), the stories were framed by a conversation that Callimachus himself had (in a dream) with the Muses on Mount Helicon (a programmatic reminiscence of Hesiod). Books 3 and 4 were probably added considerably later (after 246 BC); they do not follow the narrative frame of the earlier books but consist of a collection of aetiological stories, the first and the last of which honoured Queen Berenice II, the wife of Ptolemy III Euergetes, thus providing a frame. At the beginning of book 3 the *Victoria Berenices* celebrates – in Pindaric fashion – the queen's chariot victory at the Nemean Games and gives the tale of the games' *aition*, Heracles' slaying of the Nemean Lion, told from a typically Callimachean angle. On his way to the fight, the hero spends the night in the lowly dwelling of the poor peasant Molorcus; this domestic setting was probably much more developed than Heracles' fight itself. Book 4 ends with the *Coma Berenices*, the tale of the lock of hair that the queen dedicated for the safe homecoming of Euergetes (who had gone to war in Syria); the lock vanished and was miraculously rediscovered in heaven as a new star (the charming story can still be read in Catullus' Latin translation). Another famous story (in book 3) is that of Acontius and Cydippe, admired and imitated in Latin (by Virgil, Propertius, and Ovid) as well as in later Greek literature (e.g. in the *Letters* of "Aristaenetus"). The most important – and most widely quoted – part of the *Aetia* was the prologue, which (contrary to what earlier scholars have surmised) was already the introduction to its original two books. In it Callimachus vividly and vehemently rejects the carpings of the Telchines, as he calls his critics (the name originally signified some malevolent spirits), who demand from him heroic epics on a massive scale; but he cites the well-crafted small-scale poems of Mimnermus and Philitas as his models and claims that from his very beginnings as a poet Apollo himself advised him to seek out yet untrodden poetic paths.

The epilogue at the end of the *Aetia* evokes the next category of Callimachus' poetry, the thematically and metrically very diverse *Iambi*, which adopt the tradition of the old Ionic iambus (and especially the work of Hipponax), as the *Aetia* took up Hesiodic catalogue poetry. In six of the *Iambi* (1–5 and 13) he adopted Hipponax' trademark metre, the "limping iambic"; in the rest he used a variety of other metres. In *Iambus* 1 Hipponax himself speaks; he is "on holiday" from Hades and now admonishes – of all people – the scholars of Alexandria (Callimachus' colleagues) to cease squabbling with each other; he then pointedly relates how magnanimously the Seven Sages behaved among themselves. *Iambus* 2 tells an Aesopian fable with satirical application at the end. *Iambus* 3 laments present bad times. *Iambus* 4, another fable about the contest between the laurel tree and the olive tree that is interrupted by a neighbouring bush, is apparently connected to the framing story, in which a quarrel between Callimachus and a rival is similarly interrupted by a third person. In *Iambus* 5, in metaphorical language, the poet advises a pederastic schoolteacher not to pursue his vice any further. *Iambus* 6 offers a detailed (but badly preserved) description of the great statue of Olympian Zeus, apparently given by the poet to a friend who is about to visit Olympia; this is an intriguing mixture of a *propemptikon* (a farewell poem) and a traveller's guide. *Iambus* 7 gives an aetiological story about the wooden statue of Hermes Perpheraeus (told by the statue itself). Of *Iambi* 8–11 only a few verses remain, but we know their content from the *Diegeseis*: a victory ode in iambic trimeters containing another aetiological tale (8), a conversation between a statue of Hermes with erect phallus and a pederast (9), an *aition* for a curious pig sacrifice to Aphrodite (10), and an *aition* for a proverb (11). *Iambus* 12 returns to more poetical spheres. In this birthday poem for the newborn daughter of a friend the poet related how, when a similar feast was once celebrated on Olympus for the newborn Hebe, Apollo's hymn was judged the best among the presents then given; surely Callimachus himself wanted his own birthday poem to be judged similarly. In *Iambus* 13 Callimachus defended himself against critics carping at the diversity and multiformity of his poems. This could have been a fitting conclusion to the collection; recently, though, it has been argued that the book of *Iambi* did not only contain the 13 poems described above, but also the four following miscellaneous poems in various lyrical metres, as the *Diegeseis* do not really distinguish them from the preceding *Iambi* (Cameron, 1995, pp. 163–70).

The *Hecale* is Callimachus' response to Greek epic tradition; in this epyllion (little epic) he chooses – as in the Heracles story in the *Victoria Berenices* – a characteristically unexpected angle to retell a deed by the young Athenian hero Theseus. Having just escaped an assassination attempt by the sorceress Medea, Theseus is forbidden by his father Aegeus to seek a new danger and slay the mighty bull that ravages the Marathonian countryside;

he ventures out nevertheless and, when surprised by a heavy downpour, finds hospitable refuge in the hut of a poor old woman, Hecale (and Callimachus describes this domestic scene with loving detail). Next day Theseus successfully captures the bull (this, it seems was described only very briefly), but on his return finds the old woman dead; so he sacrifices the bull in her memory, and founds a new Attic deme, which he names Hecale, and a sanctuary to Zeus Hekaleios as well. The latter part of the poem is filled out mainly by the curious conversation between an old crow (which deeply delves into Athenian mythical history) and another bird (possibly an owl). The whole poem may have been 1000 to 1500 hexameters long.

The six *Hymns* to various deities, which take their cue from the so-called *Homeric Hymns*, are the only substantial part of Callimachus' poetry (except the *Epigrams*) to be preserved in medieval manuscript tradition. *Hymns* 1 (*To Zeus*), 3 (*To Artemis*), and 4 (*To Delos*; the island is divinized as the birthplace of Apollo) are written in a straightforward fashion. *Hymn* 3 especially contains scenes pervaded by typically Callimachean humour: little Artemis reaches in vain for her father's bearded chin and pulls hairs from the shaggy breast of the Cyclops Brontes, and when – after a hunting foray – she is welcomed on Olympus by Heracles, this well-known lover of great quantities of meat earnestly tells her not to hunt little hares but bigger animals like boar and oxen! *Hymn* 4 wittily includes an honorific mention of Ptolemy Philadelphia by way of a curious prophecy (162–95): when Leto approaches the island of Cos, Apollo, speaking from her womb, forbids her to bear him there, for this island is destined to become the birthplace of another god (Philadelphus). The other three *Hymns* are set within the frame of a ritual which is evoked by the poet's very words. *Hymn* 5 (*To the Bath of Pallas*), which unlike the other hymns is written in elegiac couplets and Doric dialect, unfolds within a ritual bathing scene for a statue of Athena; within this frame another (mythical) bath of Athena is described which cost Tiresias (who had inadvertently stumbled on the scene) his eyesight for seeing the bathing goddess. *Hymn* 6 (*To Demeter*, again in Doric dialect) within its ritual frame tells how Demeter punished Erysichthon for destroying her sacred trees by striking him with eternal hunger (which is then described in lurid and ludicrous detail). *Hymn* 2 (*To Apollo*) evokes the epiphany of the golden, youthful Apollo and ends with a peculiar section leading us back to Callimachus' convictions regarding poetry (105–12): Phthonos (personified Envy) approaches Apollo and whispers into his ear that he does not love poets who do not produce works on the scale of the sea, but Apollo kicks him away and declares his own preference for the clear and pure water of the modest fountain to the mighty, but muddy, Assyrian stream.

Of Callimachus' *Epigrams* about 60 have survived, almost all of them in the *Anthologia Palatina*. In an age famous for gifted epigrammatists, these little poems (rarely exceeding six lines) still hold their own for the strength of feeling that they express and the unexpected tarn of thought that they often take.

Callimachus was as much a scholar as a poet, but of the astonishing amount of prose works he produced even more has been lost than of his poetry. According to the *Suda*, he wrote, among other things, *On the Names of the Months according to Peoples and Cities*, *The Settling of Islands and Cities and their Renaming*, *On Winds*, *On Birds*, *On the Rivers in the Inhabited World*, and *Collection of the Carvels of all the World according to Localities*. His greatest achievement as a scholar, however was surely' the *Pinakes*, or *Tables of Those who Distinguished Themselves in All Kinds of Learning and of their Writings*, a gigantic catalogue (in 120 books) which presented the contents of the great royal library in Alexandria ordered by genre, author, and single works.

Both as a scholar and as a poet Callimachus had far-reaching influence. The great Alexandrian scholars Eratosthenes and Aristophanes of Byzantium were his pupils, as were a number of lesser ones (Hermippus of Smyrna, Istrus, and Philostephanus). In the realms of poetry, the *Aetia* and *Hecale* acquired immediate and lasting fame. The *Aetia* secured Callimachus a place among the foremost elegiac Greek poets; echoes from the *Hecale* can be found in many Greek as well as Roman poets. In Hellenistic times Callimachus' presence could be felt in the works of Apollonius Rhodius, Lycophron, Rhianus, Eratosthenes, Euphorion, Nicander, and Parthenius; in imperial times in that of Dionysius Periegetes, the two Oppians, Quintus of Smyrna, Triphiodorus, the Christian Gregory of Nazianzus, and Nonnus (both in the *Dionysiaca* and in the poetic paraphrase of St John's Gospel). In the little Egyptian village of Oxyrhynchus alone, papyrus fragments of nine separate copies of the *Hecale* have been found (ranging from the 2nd to the 6th or 7th centuries AD).

As Callimachus' poetry was never easy, even for native Greek-speakers, his works soon needed clarification. Perhaps as early as the final centuries BC the so-called *Diegeseis* (one might call them "Tales from Callimachus") were produced; largely preserved on papyrus, they provide valuable information on the content of Callimachus' work. Commentaries on Callimachus' poetry are known to have been written at least since the end of the 1st century BC: Theon, a scholar of Augustan times, and Epaphroditus (1st century AD) wrote commentaries on the *Aetia*; Archibius, the son of Apollonius, on the *Epigrams*; and Salustius (late antiquity) on the *Hecale* and perhaps other poems; this commentary was still used by Byzantine lexica (see below). Around AD 500 Marianus of Eleutheropolis produced a paraphrase of the *Hecale*, *Hymns*, *Aetia*, and *Epigrams* in 6810 iambic lines. The *Hecale* was cited by Archbishop Arethas (active in the late 9th/early 10th century), who also knew the *Aetia* and the *Hymns*; by the *Etymologicum Genuinum* (which, though itself lost, spawned various other *Etymologica* in the following centuries) in the 9th century and by the *Suda* (our most important source for the *Hecale* fragments apart from the papyri) in the 10th. The owner of the last known copy of *Hecale* (and probably *Aetia*) was Michael Choniates, metropolitan of Athens (1182–1204). This copy, however, in all likelihood perished when Athens was sacked by members of the Fourth Crusade in 1205. It was not until the 20th century that papyri would restore at least a part of what had been lost 700 years ago.

HEINZ-GÜNTHER NESSELRATH

Biography

Born *c.*320 BC in Cyrene, Callimachus was probably educated in Alexandria and lived there for much of his life. He was closely connected with the Museum and the royal library. He wrote extensively in poetry (*Aetia*, *Iambi*, *Hymns*, *Epigrams*) and prose

(most notably the *Pinakes*, a catalogue in 120 books of the library's collections). His pupils included Eratosthenes and Aristophanes of Byzantium. He died *c.*240 BC.

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CANALS

Until well into the 20th century difficulties of overland transport in Greece have led to a preference for water routes. A lack of navigable rivers has meant that long portages could not always be avoided, but Greece's deeply indented, irregular coastline has also provided opportunities to shorten both land and water passages through the construction of canals.

The most obvious site for a canal is at the isthmus of Corinth, which is a mere 6 km wide. A canal at this point was an objective of rulers from the 7th century BC to the modern era. The Cypselid dynasty, which ruled Corinth from the mid-7th to the early 6th century BC, was credited by ancient sources with a number of major projects linked to water transport. The dynasty's founder Cypselus was said to have dug a canal which separated Leucas (a Corinthian colony) from the mainland, making it an island. His son, Periander, constructed the artificial harbour at Lechaeum, on the north side of the isthmus. Late sources claim that he intended to dig a canal, but had to settle for a slipway, called *diolkos* in Greek. Traces of this construction, consisting of a paved roadway and two channels, are still visible, and archaeological as well as literary evidence supports the conclusion that it was originally constructed in the late 7th or early 6th century BC. The original purpose of this slipway is not entirely dear. The *diolkos* is near to neither of Corinth's ports, and was probably used by ships who were simply in transit. All the explicit mentions of its use involve the transport of warships. Still, this is unlikely to have been the *diolkos*' principal function as envisaged by its Corinthian builders who, after all, controlled harbours on both sides of the isthmus. It has been suggested (Cook, 1979) that the objectives of the original builders were commercial. Use of the *diolkos* allowed the Corinthians to levy tolls on those who were not actually trading with them but were passing through Corinthian territory. This slipway remained usable at least into the period of the early Roman empire, and there is some evidence that it was continuously in use up until the 9th century AD.

A canal at the isthmus of Corinth was supposedly contemplated by a variety of Hellenistic and Roman luminaries. The Roman historian Suetonius gives an account of Nero attempting to encourage the praetorian guard in this endeavour by breaking the ground and carrying the first basket of earth himself. This was not merely one of Nero's extravagant but empty gestures, since trenches 1.5 to 2 km long dating to his reign were visible before digging for the modern canal began. This canal was finally completed in 1893 during the administration of the prime minister Charilaos Trikoupis. It was one of many public works projects aimed at modernizing the country's infrastructure. For ships which can pass through the canal, the voyage from the Aegean to the Ionian Sea is shortened by some 325 km.

The second famous canal in Greece was the work of the country's enemies. The assistance that Athens and Eretria lent to the Ionian Revolt attracted the negative attention of Darius, king of Persia, who seat an expedition ostensibly to discipline those two cities. However, the expedition never progressed further than Macedonia because of excessive casualties on land and a disaster at sea. Attempting to sail round the Athos peninsula, the fleet was caught in a gale; Herodotus claimed that about 300 ships and over 20,000 men were lost as a result. A second attempt by Darius resulted in the great Athenian victory at Marathon. Herodotus presented Darius' successor Xerxes as eager to take revenge on the Greeks. He raised a force which dwarfed all the famous armies of the past and took extraordinary steps for the transport and provisioning of the expedition. In order to avoid a repeat of the Athos disaster he ordered that a canal be cut across the peninsula at its narrowest point, a distance of slightly more than 2 km. The project took three years to complete, and when finished the canal was the width of two triremes. Perhaps with the *diolkos* at Corinth in mind, Herodotus stated that Xerxes could easily have had the ships dragged across the narrow spit of land. He dismissed the canal as a work of ostentation, another manifestation of Xerxes' fatal hubris. Indeed, some ancient writers doubted that the canal had ever existed, or suggested that it had been only partially cut, with the ships being dragged the remainder of the distance. Nevertheless, European travellers of the 18th and 19th centuries noted traces of ditches and a chain of marshy lagoons along the line where the canal presumably ran. Recent geophysical investigations by the British School at Athens confirmed a V-shaped feature running along this line which agrees in its general dimensions with Herodotus'

description (Isserlin et al., 1994). The question of whether the cut completely severed the peninsula, turning it into an island, remains unsettled. The character of the soil along the southern portion of the presumed course of the canal would have made excavation much more difficult. Cores taken from the fill of the canal have no marine indicators, perhaps evidence that it had no direct outlet to the sea or that it was open only for a short time. Herodotus states that as part of the canal-building project breakwaters were constructed to keep the canal from silting up. No traces of these breakwaters have been found and, if they were in existence only for a short time, the canal itself may have had only a brief useful life (Isserlin et al., 1996).

In post-Classical times Greek engineers had at their disposal more elaborate techniques for the building of artificial waterways. In the 3rd century BC Ptolemy II Philadelphia restored the Nile–Red Sea canal which had existed in the time of the pharaohs. Diodorus Siculus describes it as having a gate that could be opened and closed quickly, while Strabo mentions that boatmen could sail in and out easily. All of this suggests some kind of lock. Egyptian reliefs showing heavily laden ships voyaging between Egyptian Thebes and the land of Punt by way of the Red Sea attest to a much earlier canal which would also have been equipped with a lock (Moore, 1950, p. 99).

Roman military engineers assured the supply lines of the empire through a series of canals, dykes, and locks in the western European provinces. Pliny the Younger suggested to the emperor Trajan, while he was governor of Bithynia, that the construction of a canal between the city of Nicomedia and a lake in the interior might be a worthwhile project. The canal was never constructed, but in the 6th century AD Justinian proposed an even more ambitious scheme to connect the Black Sea with the Propontis. This was to involve reversing the current in the Sangarius river, which flows northeast into the Black Sea, so that it would instead flow southwest into the lake. From there, a canal would be used to convey ships to Nicomedia. However, the only evidence that construction was even begun is the existence of an absurdly large bridge over the Melas river. This insignificant stream was supposed to receive the flow of the diverted Sangarius, but the plan was never accomplished (Moore, 1950, p. 108–09).

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See also **Water Management**

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CAPPADOCIA

Region of central Anatolia

Cappadocia's southern border is the Taurus range of mountains. The Black Sea lies to the north, and its eastern boundary is set by Armenia and the Euphrates, with Lake Tata at its southern end. It consists of rugged plateau country, originally known for the breeding of horses, with limited agriculture, good grazing, and a fair degree of afforestation on the higher ground. The region is divided into a northern part, known as "Cappadocian Pontus", or more often simply "Pontus", and a southern part known as "Greater Cappadocia", or simply "Cappadocia".

Early in its history the region was invaded by Assyrians and Hittites (2nd millennium BC), followed by Phrygians and Cimmerians (*c.*1000 BC). The Persians, who came next (6th century BC), left their influence in art and religion. Although not directly conquered by Alexander the Great, Cappadocia came under Macedonian control from the 4th century, as the native monarchy assimilated Hellenized patterns. This process was well advanced in the 2nd century BC, when kingdoms such as Cappadocia were forced to take sides for or against the Romans. A spell of vacillation ended in support for Rome. As a client kingdom Cappadocia gained a measure of protection, benefiting particularly from Pompey's restoration of order in the east. Annexation followed in AD 17, when Cappadocia was for a time combined with Galatia. Between 107 and 113, it was joined with Pontus to form a new province, an arrangement which lasted until the reign of Diocletian (284–305). The strategic importance of this frontier province was recognized by the building of roads and the stationing of garrisons. The area became one of large estates, including imperial ones, clearly worth defending. It contrived to resist complete absorption into Roman life, maintaining an identity which included a form of the Cappadocian language which survived into the 3rd century AD.

Immigration was also an important factor in the history of Cappadocia, whether of Jews and Celts in the Hellenistic period or of Armenians in the 6th century AD. The diaspora Jews of Cappadocia were a significant element in the history of the Christian Church, mentioned in Acts 2: 9 as present at Pentecost and again referred to in 1 Peter 1: 1 as a notable part of the Jewish community, amenable to conversion. Christianity was established early in Cappadocia and the region came to play a notable part in its development. Mazaka became the capital in the 2nd century BC, but was renamed Caesarea (modern Kayseri) in 12–9 BC and became the provincial capital in AD 17, serving not only as an administrative centre but as a focus of literature and learning. This cultural primacy was encouraged by the emergence of a notable bishopric. St Firmilian (d. 268) was an impressive occupant of the see who was on intimate terms with Origen and was able to invite the Alexandrian teacher to Caesarea. Cappadocia did not escape persecution, whether under Emperor Maximinus "the Thracian" (235–38) or Decius, in the years 249–51. Throughout all this, Cappadocia maintained a reputation for Christian orthodoxy, in contrast to the sundry heterodox movements that developed in neighbouring Phrygia.

It was, however, in the 4th century, following Constantine I's acceptance of Christianity, that Cappadocia achieved its

most noteworthy Christian status, through the birth there and lifelong work of the so-called Cappadocian Fathers, Basil of Caesarea, Gregory of Nazianzus, and Gregory of Nyssa. Associated with them were Macrina, the sister of Basil and Gregory of Nyssa, Amphilochius of Iconium, and Asterius of Nemesa. Cappodocia was also the birthplace of the emperor Julian, who came to be known as "the Apostate", for although brought up as a Christian he repudiated the faith and attempted to restore paganism, to the great anger of Basil and Gregory of Nazianzus who had been fellow-students in his Christian days. The preservation of the Nicene faith and its definitive expression at the Council of Constantinople in 381 owes much to the relentless exertions of the Cappadocian Fathers.

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CARNEADES 214/13–129/28 BC

Philosopher

A pupil of Hegesinus the Academic, Carneades became the classic exponent of the sceptical interpretation of Plato. According to this, the essence of Plato's thought was to be found, not in the positive teachings of the later dialogues, but in the diffidence of Socrates, who maintained that he knew nothing, pronounced most of his arguments inconclusive, and was willing in the *Phaedrus* to deliver successive speeches on the same question in opposing characters. Carneades, however, also made himself familiar with a more dogmatic system under the Stoic teacher Diogenes of Babylon, and many of his discussions (which were not committed to waiting but reported by his pupils) take the form of animadversions on Chrysippus, the most accomplished dialectician of that school. Indeed, he is reputed to have said that he would have been nothing without Chrysippus (Diogenes Laertius, *Lives of Philosophers*, 4. 62). Chrysippus averred that the wise man has no opinions, since he is able to distinguish between impressions that are dubitable or false and those that are truly cognitive. Carneades, on the other hand, believed that by exposing the flaws in the arguments of his great Stoic predecessor he had proved the fallibility of all reasoning, and had thus shown that the wise man is bound either to have opinions or to think of nothing at all.

The most famous of his polemics were directed against the Stoic belief in providence. Chrysippus had urged that since the gods are wise they are bound to love us, and, since they know the future, cannot fail to speak in times of need through oracles and omens. Carneades turned this reasoning on its head by saying that, if it is true that a deity who is wise is bound to love us, the presence in the world of many evils that belie this love compels the impartial thinker to doubt either the existence or the wisdom of the gods (Cicero, *Nature of the Gods*, 3. 32). He was a strong proponent of free will, and is said to have attempted a tripartite classification of the possible goals of life. Against the Stoics who followed Chrysippus in upholding divination, he retorted that the evidence of the senses, unreliable though it is, is still more worthy of trust than the private arts by which the seers profess to detect an occult significance in nature (Cicero, *On Divination*, 2. 9). From the frequency with which his name is cited in polemics against astrology, it is probable that he is the source of many specific arguments espoused by the later, Pyrrhonist branch of scepticism; nevertheless his views can be distinguished from those of the Pyrrhonists in two respects at least. First, he did not acknowledge that his doctrine of universal fallibility was itself a thesis open to refutation; secondly, he did not assert that all fallible opinions were of equal weight, but held that we may have reasons for considering one more probable than another. The Carneadean sceptic therefore lives according to his own conclusions and not, as the Pyrrhonist has to do, according to the custom of his neighbours. Nevertheless the criteria that determined probability for Carneades are far from clear, and even his disciples found it hard in many cases to ascertain his own belief.

The most notorious episode of his life was his visit to Rome in 155 BC, when he joined the Peripatetic Critolaus and the Stoic Diogenes in a petition for the waiving of a fine that the Senate had imposed on Athens. To demonstrate his prowess in philosophy he spoke on one day before the Senate in support of a certain thesis and on the next with equal cogency against it. So impressive was this exhibition that the Senate at once acceded to Cato's motion for the settlement of the fine and the expulsion of the philosophers from the capital (Plutrach, *Cato Maior*, 22). Nevertheless, there is something not entirely foreign to the Roman spirit in scepticism. Cato himself is said to have thought that augury was a sham, and Cicero borrowed liberally from Carneades in his works *On Divination* and *On Fate* which offer persuasive criticism of the Stoics. The third and ablest speaker in his dialogue *On the Nature of the Gods* declares that the Stoics have not convinced him, and that therefore he rests content with ancestral custom, the *mos maiorum*. This is the acquiescence of a Pyrrhonist, yet Cicero himself, in more Carneadean fashion, admits the force of the arguments on both sides, but opines without giving reasons that the Stoic enjoyed the best of the exchange. Carneades was for him the paradigmatic figure of the New Academy, of which he professed at times to be a member.

Under the Roman empire, systematic thought was once again in fashion among the Platonists, and Numenius of Apamea, a 2nd-century AD precursor of Plotinus, accused the New Academy of a progressive apostasy from the genuine teachings of the master. Around AD 200 the Christian writer Clement of Alexandria appealed to sceptical arguments to demonstrate the bankruptcy of philosophy, and deduced that no constructive thought was possible for those who were unwilling to put their faith in an infallible revelation (*Stromateis*, 5). The objections to astrology that were borrowed from Carneades by the Pyrrhonist Sextus Empiricus were borrowed in turn from Sextus by Hippolytus of Rome (died 235) and by Augustine. Nevertheless Augustine's work *Against the Academics* upholds dogmatic Platonism against the Carneadean method which assumes that it is possible to discover what is "like the truth" (*veri simile*) without the knowledge of anything that is certifiably true. The Christian tradition had good reason to treat the sceptic as its natural adversary, in the west as in the east: a Pyrrhonian suspension of belief could be the preface to orthodoxy, as in Descartes, but where the Carneadean spirit prevailed, as in Voltaire and Bayle, it allowed at most a lukewarm and conventional adherence to the Church.

MARK EDWARDS

See also **Scepticism**

Biography

Born in Cyrene in 214/13 BC, Carneades was a pupil of Hegesinus at the Academy and also of the Stoic Diogenes of Babylon. He became head of the Academy (or founder of the New Academy) before 155 BC. In that year he joined Diogenes and Critolaus on an embassy to Rome. He left no writings but his ideas were recorded by his pupil Clitomachus. He resigned in 137/36 and died in 129/28 BC.

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CARTHAGE

Phoenician city in north Africa

The traditional date for the founding of Carthage is 814 BC. In the *Aeneid* Virgil immortalized the foundation myth of Queen Dido fleeing the Phoenician city of Tyre, and the murderous designs of her brother, to the shores of north Africa where she established her 'New City' (*Kart-Hadasht*).

Carthage became a prosperous city governed by an oligarchy with two chief magistrates (*suffetes*) elected annually, and supported by a Council of 300 and a popular assembly advising them. This constitution was admired by Aristotle in his *Politics* (2. 8). It evolved later into the Court of the 104 Judges, and the Boards of Five. The ruling class used this system to block any ambitious *suffet* from becoming too powerful with the help of the army.

Soon the Phoenician seafarers of Carthage began to colonize Andalusia, Malta, Sardinia, and parts of Sicily. Phoenician tombs in these regions, dated between 800 and 700 BC, attest to this activity. The following centuries saw the further expansion of Carthaginian territory along the north African coast. One group among the leaders of Carthage favoured branching out into the interior where they occupied land in the Bagradas valley, and successfully practised agriculture among the Berbers. The majority of the leading men in Carthage, however, concentrated their activity on seafaring and trade. Carthage became the foremost among the Phoenician settlements along the coast of Africa, drawing revenues from their ports, which made it the wealthiest city in the western Mediterranean.

Eventually, Carthage's colonizing zeal and mercantile activities brought it into conflict with the peoples of the northern shores of the Mediterranean: first the Etruscans and Greeks, and later the Romans. In 535 BC Carthage in alliance with the Etruscans fought a victorious battle against Phocaeans at Alalia in Corsica and in 509 BC, as an established power in the western Mediterranean, it signed a treaty with Rome.

A Carthaginian army under the leadership of Hamilcar, possibly encouraged by Persia which was involved in conflict with the Greeks in the east, attacked Sicily in 480 BC. The invasion failed due mainly to an alliance between Syracuse and Acragas. Gelon (*c.*540–478 BC), the tyrant first of Gela and later of Syracuse, was a military leader of talent who had established his authority over more than half of Sicilian territory. In league with Theron of Acragas (488–472 BC) and others, Gelon defeated the Carthaginians in 480 at Himera. Rich spoils in booty and prisoners were taken, and Gelon, mindful of Apollo, dedicated a golden tripod to the god at Delphi. Carthage was forced to buy peace, paying a large war indemnity.

The Greeks of Sicily were threatened again by Carthage when a Punic force captured Selinus and Himera in 409. In 405 Dionysius I (*c.*430–367 BC), the tyrant of Syracuse, acknowledged Carthaginian possessions in western Sicily where Himilco founded Lilybaeum, but was later able to drive them out of Sicily, leaving them by 392 in possession of the island's western extremity only. It was under his weaker son Dionysius II that Sicily was once again thrown into conflict.

In 348, 306, and again in 278 BC Carthage concluded further treaties with Rome. The last of these treaties had as its raison d'être in the danger posed to Carthage and Rome by the coming of Pyrrhus to Sicily. Regardless of this, the two states were later drawn into armed conflict, having both become entangled in Sicilian politics.

The First Punic War broke out in 264 and lasted until 241 BC. It was essentially a war triggered off by conflict of interest between Carthage and Rome; the former attempting to gain control over the Greek cities of Magna Graecia, and the latter seeing it as an interference in its sphere of influence. To recoup Carthage's losses resulting from the war, Hamilcar Barca abandoned all interest in Greek Sicily and established a Carthaginian empire in Spain. The capture of Saguntum by Hannibal in 219 BC provided the casus belli for the Second Punic War which saw Hannibal's spectacular crossing of the Alps into Italy and a string of impressive victories, but ended with Hannibal's defeat at the battle of Zama in Africa in 202 BC. In his statesmanship Hannibal belongs to the Hellenistic world of the Mediterranean, and in his generalship to the tradition of

Alexander the Great and Pyrrhus, the Molossian king of Epirus (319–272 BC). After Zama Hannibal fled to the court of King Prusias I of Bithynia where he committed suicide in 183/82 BC. The Third Punic War was provoked by Rome's African ally Massinissa, and led to the destruction of Carthage by Scipio in 146 BC.

The territory of Carthage was pronounced cursed ground, and when Caius Gracchus tried to establish a Roman colony there, his enemies in the Roman Senate resisted, and he failed. It was later colonized by Caesar and Augustus, becoming the capital of proconsular Africa in the 2nd century AD. As such it was a flourishing Roman city, equally famous as a centre of education for orators and lawyers. Tertullian and Cyprian made it an important Christian city in the 3rd century AD; and in later years the bishop of Carthage was to play a significant role in Latin Christianity.

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See also **Phoenicians; Sicily**

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CARTOGRAPHY

In any consideration of cartography as practised by the Greeks, it quickly becomes apparent that there are two main divisions: the first is related to cosmology and theories about the origin and shape of the earth as a whole, while the second is rather more mundane and involves plans of a building, an area, a town, or a district, and may describe how to get from point A to point B, either by land or by sea. The ancients described these divisions as geography and chorography, respectively (cf. Ptolemy, *Geography*, 1. 1–5).

With regard to geography, early representations of the world survive from the Near East, the most famous perhaps being a clay tablet in the British Museum depicting Babylon and other districts and cities, along with the river Euphrates, all surrounded by a circular salt ocean with indications of mythical beasts and regions beyond the ocean. This object, dated *c.*600 BC, is surprisingly similar to the concept of the world promulgated by Thales of Miletus at about the same time, where the world is likened to an inverted bowl floating upon water: certainly the idea of the "River of Ocean" surrounding the land mass of the known world is remarkably persistent from Homer to late-Classical antiquity. As geographical knowledge improved, various writers recorded what they believed to be the spatial relationships of territories and peoples to each other, and it is from this information that many modern historical atlases present items such as "the world according to Hecataeus" or "Herodotus" or "Eratosthenes": actual ancient versions of these maps do not survive (indeed, modern versions seem to originate in the 1883 volumes of Bunbury), although there do exist Byzantine versions of Ptolemy's maps.

Circular maps were remarkably persistent, being found as late as the 1st century BC, even though Herodotus (4. 36) had mocked them in the 5th century. Of course, it is easy to confuse a circle with the representation of a sphere on a flat surface: the notion that the earth is spherical may have originated with Pythagoras and his followers in the late 6th century and certainly the idea was widely known by the 4th century, as can be seen from the production of "celestial spheres" (it is these, frequently with a zodiacal band, which appear in later statues of Atlas carrying a globe), all of which involved understanding of the equator, the tropics, and the polar zones, along with theories about inhabitable areas and the existence of "antipodes". Inevitably, people wanted to know exactly *where* they lived on this sphere and how *large* it was.

The gnomon (a vertical pointer, part of any sundial and possibly introduced from Babylon in the 6th century BC) made it possible to calculate latitude, if one knew the date and took one's readings at midday. Pytheas of Massalia (*fl. c.*320 BC) calculated the latitude of his home town to within about 13 km of the correct position; and from his famous voyage to the Tin Islands, around Britain, and possibly into the Baltic, he provided information about the length of solstitial days at various sites, which were later translated into degrees of latitude. (Longitude, of course, could not be calculated with any precision at all in antiquity, not that that prevented people from trying.) Eratosthenes of Cyrene (*c.*276–*c.*194 BC), chief librarian in Alexandria, was able, using a gnomon, to calculate that the distance from Alexandria to Syene (Aswan) was one fiftieth of the circumference of the earth, giving a result of 250,000 stades, which he later altered to 252,000 stades. There are several errors in Eratosthenes' calculations, notably that Syene lies on the Tropic of Cancer and that it is on the same meridian as Alexandria; however, these happen to cancel each other out and, depending on the length one accepts for a stade, his answer is either astonishingly close to the correct figure, or it is merely the best approximation arrived at in antiquity.

In a major work on geography Eratosthenes then proceeded to calculate the size of the *oikoumene*, the inhabited portion of the world, as known in the 3rd century BC, and to produce a detailed map of it, using lines of latitude and a number of meridians to produce a grid, within which countries were placed, each having a generalized indication of its overall shape. Our knowledge of this map comes from later sources and, although it was somewhat crude and modern reconstructions of it may be rather misleading, nonetheless it formed the basis of all subsequent attempts in antiquity to produce maps of the inhabited world as they would be understood today.

By the middle of the 2nd century BC terrestrial globes were being produced, though large segments of them were inevitably hypothetical. Map makers tended, therefore, to focus on maps of the "known" world and they were, by this time, concerned with two problems: the representation of a section of a sphere on a flat surface and the type of scale to use. Crates of Mallus (who visited Rome *c.*168 BC) created a very large map which was 7 feet wide from east to west and intended to represent a scale of 1 foot to 10,000 stades; apparently the meridians did not converge. This map and others like it were clearly unsatisfactory; so the problem of establishing a suitable projection was tackled by Ptolemy (Claudius Ptolmiaeus, *c.*AD 90–168), who worked in Alexandria: he produced two projections, described in Book 1 of his *Geography*, and they constitute perhaps the greatest legacy from antiquity in scientific map making. In addition, the remaining seven books of the *Geography* catalogue by latitude and longitude about 8000 cities, mountains, islands, and the like, providing the raw material for the construction of a series of maps.

As for chorography, topographical representations have been identified in prehistoric carvings, and on rock and wall paintings and pottery, including an apparent "town plan" from Çatal Hüyük in Anatolia (*c.*6200 BC); and in Mesopotamia a seated statue of Gudea, ruler of Lagash in the mid-22nd century BC, shows on his lap a tablet bearing the plan of a large building with a scale along the top. In Egypt trigonometry and surveying instruments were developed in the early part of the Old Kingdom (*c.*2600 BC) to enable land allotments to be redefined after the annual inundation of the Nile; and many plans of estates, mines, and tombs survive from the period before 1000 BC. The Egyptian tradition of surveying and chorography became important for the rest of the Mediterranean world after the death of Alexander the Great, with the Ptolemaic dynasty and the scientific upsurge created by the Museum and Library in Alexandria. Alexander's expedition across the Middle East as far as India created huge logistical problems involving supplies and reinforcements, and Alexander, pupil as he was of Aristotle and curious about everything, had surveyors ("bematists") and geographers in his train. The result was an expansion of earlier Persian "route maps" and other representations of the world (cf. the story of Cleomenes I of Sparta and his discovery, from a map, that to travel the Royal Road from Sardis to Susa involved a march of three months: Herodotus, 5. 49–50), while Ptolemaic surveys in Egypt both of agricultural land and of distances undoubtedly influenced developments in Carthage and in Italy, where the Greek cities of the south and then the Romans evolved elaborate systems of land surveying and allocation (centuriation). The building of highways throughout the growing empire produced what today are known as "strip maps", culminating in the ancestor of the famous Tabula Peutingeriana and in various Itineraries, which reflect major routes for land travel in the Roman empire and later.

Although these developments involved Greek-speaking lands, traditionally the Greeks were seafarers and their interests are reflected in *periploi* ("sea routes around"), which correspond to modern "Pilots", with descriptions of sea distances, landfalls, coastlines, river estuaries, and harbours. The earliest *periplous* which can be hypothesized is "Homeric": any modern analysis of the wanderings of Odysseus is controversial, but it may not be entirely fanciful to see in the *Odyssey* some reference to knowledge of Italian, Sicilian, and north African waters acquired by the Greeks during the first phase of western colonization (*c.*750–650 BC): see, for example, Bradford's comparison of Odysseus' landfall among the Laistrygonians at *Odyssey*, 10. 87–97 with the (British Admiralty) *Mediterranean Pilot* account of Porte de Bonifacio in southern Corsica. Many such *periploi* appeared over the centuries, involving navigation all round the Mediterranean and also in the Atlantic, and in eastern waters too, after the voyage of Alexander's admiral Nearchus from the Indus to the Persian Gulf. Perhaps the most important of these is the *Periplus Erythraei Maris*, written by an Egyptian Greek about the middle of the 1st century AD: it describes routes around the coasts of east Africa and southern Arabia and the direct route, using the recently discovered monsoon, to the west coast of India.

Over time these two approaches to cartography, geography and chorography, drew on and enriched each other. For example, the huge map of the known world created by Marcus Agrippa at the behest of Augustus and displayed on a portico in Rome late in the 1st century BC was the result of the accumulation of chorographic as well as geographic information, while the huge engraved maps of the city of Rome created in the Flavian and Severan periods (of which stone fragments survive) represent the culmination of the tradition of detailed depiction of limited areas.

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CASSIUS DIO *c.*AD 164 – after AD 229

Historian

Cassius Dio originally came from the prosperous city of Nicaea in Bithynia in northern Asia Minor, but was probably taken to Rome as a boy when his father Cassius Apronianus became a senator. Thus Dio, born in the Greek east and brought up in Rome, had a dual heritage. Following in his father's footsteps, he entered the Senate under Commodus (reigned AD 180–92), was awarded a praetorship by Pertinax (AD 193), and, probably around AD 204, was made consul by Septimius Severus (AD 193–211). His career continued to prosper under Severus Alexander (AD 222–35), who in quick succession appointed Dio proconsul of Africa (*c.*AD 223), legate of Dalmatia (*c.*AD 224–26), and legate of Upper Pannonia (*c.*AD 226–28). These appointments were certainly prestigious, but Dio, who was no longer a young man, was thereby prevented from spending much time in either Italy (where he had a pleasant villa at

Capua) or Bithynia. In the end, Dio did not forget his eastern roots, although much of his adult life was spent serving Rome around the empire. After holding his second consulship in AD 229, he retired to Bithynia to nurse his bad feet (80.4. 2–5. 3). The precise date of his death remains unknown.

Dio's most important achievement is his monumental historical work, the *Roman History*, which was written in Greek and originally contained 80 books narrating events from the origins of Rome until AD 229. The Bithynian senator claims that the impetus to write, history came from Septimius Severus. This emperor had so much enjoyed Dio's earlier work on the dreams and portents that heralded his principate that he wrote a letter to say so (72. 23. 1): that same night Dio dreamed that a divine power ordered him to write a historical narrative of Severus' rise to power, and the success of this work eventually resulted in Dio composing the *Roman History*. Today we have *Roman History* 36–55. 9 (covering the years 69–6 BC) almost intact, but the remaining books are preserved only in fragments and epitomes. Proudly Dio claims that he spent 10 years conducting historical research and 12 years actually writing the narrative until the death of Severus in AD 211 (72. 23. 5). This assertion is designed to generate confidence in the *Roman History* as a well-crafted historical work and echoes the claims of previous historians writing in Greek: Diodorus Siculus claims to have spent 30 years on his history, and Dionysius of Halicarnassus 22 years. Above all, Dio was influenced by Thucydides, from whom phrases, ideas, and techniques were borrowed. So, Dio's Fabius Rullus argues against excessive retaliation for a Latin revolt (fr. 36. 1) in a way that recalls Thucydides' Diodotus during the Mytilenean debate. Dio's stylistic and intellectual debts to the 5th-century BC historian Thucydides can be seen as symptomatic of the Greek cultural revival known as the Second Sophistic.

At the same time, Dio owed much to the Roman historiographical tradition. For chronology the *Roman History* uses the official Roman year dated by consuls as the principal structural device, but, like Tacitus, Dio does not allow himself to be restricted by this potentially rigid annalistic format. So Dio organizes material along biographical lines, particularly when narrating the principate: individual emperors are often both introduced and allowed to leave the stage with separate character sketches. Likewise, Dio was prepared to narrate events that spanned several years in one continuous segment of narrative, particularly in the case of foreign campaigns (49. 19–33). Moreover, he clearly knew Latin: he appears to have read Seneca's *Apocolocyntosis* (60. 35. 3–4) and laments the fact that he cannot find a direct equivalent for the Latin word *auctoritas*, which he transliterates in Greek (53. 3. 4–5).

Ideologically, Dio valued the stability created by the principate and observed pithily that "Monarchy sounds unpleasant, but it is the most practical form of government under which to live" (44. 1. 2). This stance does not make him uncritical of incompetent emperors, and even Septimius Severus, who inspired Dio to write history, is given a balanced treatment. We are repeatedly offered perspectives on the principate that reflect the senatorial point of view. So, when Commodus decapitates an ostrich and brandishes the head at the senators, Dio discreetly hints to his colleagues that they can avoid laughing by chewing on the laurel leaves of their crowns (72. 21. 1–2). In his narrative Dio's judgement on particular emperors often rests on how well they treated his fellow senators.

Nor does Dio's general approval of the imperial system lead him to ignore the difficulties of historical inquiry under the principate, when the size of the empire and the secrecy in which important decisions were taken made it difficult to reconstruct events (53. 19). Dio, who spent his professional life working under the emperors, was fascinated by the transition from republic to principate, as is clear from the fact that the *Roman History* devotes much more space to this period than to any other. Today historians especially value Dio's sophisticated and clear narrative of the triumviral era, and passages such as the unusually frank reassessment of Cicero (38. 12) show that Dio can offer us valuable alternative perspectives on leading historical figures of the period. Perhaps Dio's own experiences of confronting turbulent armies in Pannonia (80. 4) may have sharpened his interest in the triumviral age as a whole.

Dio was the last substantial writer of annalistic history from the ancient world whose work is at least partly extant. The Byzantine scholar Photios had read Dio and regarded him as a much clearer writer than Thucydides. Perhaps this enthusiastic response was partly because Dio's subject matter in the *Roman History* must by its very nature have appealed to educated readers in the Byzantine world, who saw their state as a continuation of the Roman empire. Many fragments of the *Roman History* have survived thanks to the efforts of the excerptors who worked for the emperor Constantine VII Porphyrogennetos (913–959). There is a useful epitome of books 36–80 made in the late 11th century by John Xiphilinos, who selected episodes from Dio that he regarded as particularly entertaining or enlightening. Moreover, early in the 12th century, John Zonaras wrote an *Epitome of Histories*, which was a universal history documenting events from the creation until AD 1118. A comparison between the *Epitome* and extant portions of the *Roman History* shows that Zonaras tended to paraphrase Dio fairly freely, but the Byzantine historian did preserve a version of *Roman History* 1–21 (now lost), which served as one of his chief sources for early Roman history. Subsequently, in Paris, the king's printer Robert Estienne produced in 1548 the first printed edition of Dio's *Roman History*, which ensured that the work was widely read. Finally, Dio's *Roman History* was competently edited by U.P. Boissevain (1895–1931), and his text still serves as the starting point for most modern editions.

RHIANNON ASH

See also **Historiography**

Biography

Born at Nicaea *c.*AD 164, Cassias Dio was educated in Rome and followed his father into the Senate. He held the consulship twice and after the second time (AD 229) he retired to Bithynia where he died (date unknown). Dio wrote in Greek a *Roman History* in 80 books, taking events from the origins of Rome to his own day, of which about 20 books survive intact (covering 69–6 BC) and fragments of the rest.

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CATANA

City in Sicily

The city of Catana lies on the coast in the centre of eastern Sicily, its harbour facing the Ionian sea – an excellent site for a port. It occupied the north side of a fertile volcanic plain in the shadow of Mount Etna; its sister city, Leontini, was situated to the south. No doubt the intention of the Ionians in founding the two cities was to control access to the rich agricultural plain. Catana was also located near a delta formed by three major river valleys reaching westwards into the interior, which was occupied by Sicels.

The Ionian colony at Catana was founded *c.*729 BC by Chalcidians from the mother colony of Sicilian Naxos, itself founded by a group of Chalcidians from Euboea. The *oikistes*, or founder, was Euarchus. In the early period a great variety of Greek pottery – Corinthian, Athenian, Chalcidian, Chian, East Greek, and Spartan – indicates that the native Sicels were well acquainted with the Greeks, primarily through trade. Once the Ionian colonists settled on the site, relations appear to have been relatively peaceful, with the archaeological evidence suggesting that the two groups lived amicably side by side. Thucydides (6. 2), however, says that the Sicels retreated inland and to the north with the arrival of the Ionians on the east coast of the island.

Catana was autonomous in the Archaic period, with a very active political and economic life. Greek goods gradually made their way into the interior along the river valleys; archaeological evidence indicates that the area was fairly well Hellenized by the end of the 6th century BC. The lawgiver Charondas (*c.*500) established one of the earliest codes of Greek law, pertaining primarily to the giving of evidence in court and rules governing contracts. These laws were successful in retaining aristocratic power without dissension among the colonists, and his law code became famous throughout Greece. Stesichorus, the choral lyric poet, was also resident in Catana at this time. Only fragments of his work survive, but they show that his treatment of myth was an important stage in the transition from epic to tragedy in Greek literature.

By the early 5th century BC the city had lost its autonomy and was under Syracusan control. In 475 Hieron I, tyrant at Syracuse, invaded Catana and expelled the inhabitants. He repopulated the site with Dorians and mercenaries and renamed the city Aetna, setting up his son Deinomenes as ruler, but the Catanians returned in 461 and the old name was restored. Later in the century, during the Sicilian expedition (415–413 BC), the city supported Athens, which used it as a base for attacks against Syracuse. When the Athenians were defeated, the city was occupied by Dionysus I, another tyrant ruling at Syracuse, who sold the entire population into slavery and settled his Campanian mercenaries there. From then on Catana formed part of the Syracusan empire. Diodorus Siculus (14. 59. 2) relates that the lands were given to the Sicels with the Ionians remaining in exile until 358, when the survivors moved to Tauromenium (Taormina). The Campanian mercenaries still inhabited Catana when it was conquered by Rome in 263 BC during the First Punic War.

In the 5th century the city was celebrated by the poet Aeschylus in his now lost play *The Women of Aetna* (*c.*470 BC), and it was the centrepiece for Pindar's *Pythian* 1, a choral lyric composed for the festival in honour of Apollo at Delphi, at which the major event was a musical competition for a hymn to the god.

Little is known about the physical appearance of the Greek city, as its remains were largely obliterated by the lava flow of 1669. Architectural fragments on the acropolis, a sanctuary of Demeter, long theatre walls, and the contents of Hellenistic graves outside the ancient city, do however attest to its presence.

In the 2nd and 1st centuries BC the city was given the status of a *civitas decumana*, flourishing under the Roman Republic, although it suffered damage in the First Slave War (135 BC). Catana became a Roman colony under Augustus (21 BC). Most of the extant physical remains in Catana date to the Roman imperial period, when the city was very prosperous. Having maintained and improved its port facilities, it served as a centre for the shipment of timber and basalt millstones.

The vast majority of Sicilian craftsmen were Greek-speaking, and the epigraphical evidence indicates that even into the Roman period roughly half the population on the island still spoke Greek, while the other half spoke Latin. The Greek calendar continued in use into the early imperial period, and the year was officially dated according to the eponymous priesthood of Zeus Olympios at Syracuse. It appears that Sicily was never fully Romanized and that Greek was widely spoken, especially in the rural areas, which were hardly affected by the Roman incursion. In fact, much of the island seems to have remained Greek until the end of the Roman empire. Catana

retained its importance through the Byzantine period, and was one of the first and most important Christian communities in Sicily.

The Chalcidians were the earliest and most prolific colonizers on the eastern coast of the island, laying claim to the whole northeastern part of Sicily in two decades with the establishment of colonies there – one of the first settlements was located at Catana. Through peaceful coexistence with the native Sicels, Catana was a vital factor in the establishment of a Greek foothold on the eastern coast of the island, controlling as it did the agricultural products of the fertile volcanic plain and, by virtue of its excellent harbour, serving as a base for Greeks trading with settlements further to the west along the shores of the Mediterranean Sea. Catana played an important role in the Hellenization of the eastern central part of the island, a process so successful that the city was emblematic of a strong Greek presence in Sicily long after it became part of the Roman empire.

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See also **Sicily**

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CAUCASUS

Region between the Black Sea and the Caspian Sea

The Caucasian mountains, which, with their many rivers, lakes, and passes, divide the northern Caucasus from Transcaucasia, were familiar to the Greeks, but they knew only the name and massiveness of this range. Herodotus was the first to give information about the mountains and the peoples who dwelt there, living a primitive and barbarian life. Alexander the Great was mistaken in thinking that the Hindu Kush was part of the Caucasian range. Although Strabo gives a good description of the mountains, ancient authors were wont to mislocate them to or conflate them with the Urals as well as the Hindu Kush.

This very distant and mysterious mountain region had its place in Greek mythology. The Caucasus was the land of Arimasps and of griffins, who guarded its gold treasure. Prometheus, having stolen the secret of fire and given it to man, was punished by being chained to Mount Elbrus, one of the highest peaks in the Caucasus, while an eagle sent by Zeus picked continuously at his liver until he was unbound by Heracles, who slew the eagle. There are several local versions of the myth and cult of Prometheus. In Georgian folklore Prometheus is called Amirani. In Greece itself there are many other versions: for example, in Athens he was worshipped by potters and in the Academy; in Thebes one of the Cabin is named Prometheus and his son is Aetnaeus.

To the south of the Caucasian mountains lies Transcaucasia, known to the Greeks as home to the ancient civilizations of Colchis, Iberia, Armenia, and Albania, the first three being familiar to them but the latter beyond their interest and involvement.

Colchis was the best known thanks to the establishment of the Ionian colonies of Phasis, Gyenos, and Dioscurias on its Black Sea coast in the mid-6th century BC. In Greek imagination Colchis was the final destination of Jason and the Argonauts, who sailed there to retrieve the golden fleece. This, one of the most popular Greek myths, had a very strong impact on ancient art, and over several centuries artists depicted scenes from it. One of the most popular figures in Greek literature and art was Medea, the barbarian Colchian princess, granddaughter of Helios and daughter of Aeëtes, king of Colchis. Thanks to her sorcery and love Jason was able to depart from Colchis with the golden fleece; he also took Medea, and later married her. When he attempted to repudiate Medea she killed their children. The popularity of herbal medicines in ancient Greece was linked to Medea and her magical powers.

For Greeks Colchis was a land rich in gold, iron, timber, and honey. Ancient authors state that these natural resources and raw materials, together with slaves, were exported to Greece. In their Writings it was alleged that particles of gold were washed up by the mountain streams of the Caucasus, and that Colchians used to place fleeces in the water to catch them. This is but one of many interpretations of the golden fleece in ancient Greek literature. It is thought that when Greeks initially arrived in the vicinity of Phasis they saw a very beautiful species of bird, previously unknown to them, which they started to export to Greece. They named it "bird from the Phasis river" (pheasant).

Colchian elite culture was strongly influenced by Greek. This is reflected in architecture, sculpture, goldwork, etc. Greek craftsmen were employed; the cults of Apollo, Dionysus, Helios, Heracles, and the Dioscuri were common; Greek was widespread as the official and religious language. Greek influence continued via Byzantium from the 4th century AD with the adoption of Christianity as the state religion of Egrisi (successor to Colchis; modern western Georgia) and Iberia (eastern Georgia). Early Christian church architecture showed strong Byzantine influence, and the Georgian Church itself was a Byzantine offshoot. In the medieval period, Georgian icons were opulently decorated with enamel, initially influenced by Byzantine practice before a

distinct Georgian school grew up (as was the case with religious mural painting and mosaics). A new wave of Greek settlers (known as Pontic Greeks) appeared from Anatolia in the wake of the Graeco-Turkish conflicts of the later 19th century. They settled in western Georgia in new villages which they established, and preserved their linguistic and cultural identity. Many "returned" to Greece following the collapse of the Soviet Union.

Iberia and Armenia were subject to weaker Greek influence. The predominant external influence was Achaemenid Persia. But the subsequent creation of Hellenistic kingdoms in the east I brought the full weight of Hellenic culture to bear. This was reflected in the layout and architecture of cities, in crafts, and everyday life. Armenia was also Christianized and enjoyed close links with Byzantium.

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CELIBACY

By definition celibacy implies self-sufficiency and separation. It points to a hierarchy of relationships with the divine and establishes superiority. The celibate becomes the symbol of purity and the conveyor of special religious powers. In antiquity sexual abstinence was demanded of priests and priestesses of certain deities. However, in the case of priestesses the main idea of celibacy was that they lived in marital relation to the divine. Thus, old peasant women that could no longer have sexual intercourse were chosen for the position of Pythia at the temple of Apollo at Delphi, serving as "brides" of the god. A few days of sexual restraint were also required of participants in the cults and this was probably connected with the idea that sexual intercourse is polluting because it opens the possibility of demonic infection. As far as male celibacy in antiquity was concerned, one could distinguish two types: first, that of the priest whose celibacy was demanded for purely ritualistic reasons; and secondly the philosophically grounded celibacy of such groups as the Pythagoreans and the Stoic philosopher Epictetus, who saw the philosopher's task as necessitating a detachment from the mundane requirements of family care. Yet, it is worth noting here that in pre-Christian times celibacy was also considered, particularly by the Athenians, as "evil" because it prevented the reproduction of the human race and negated the "natural laws" of human existence. Plato and Plutarch even mention that special laws existed against celibacy.

Though in antiquity celibacy seemed primarily to serve a ritual function, in the early Christian Church it came to serve an ethical one as well. The celibate state was extolled by the Church Fathers and from then on was regarded as explicitly superior to being sexually active, even within the context of marriage. In the first centuries of Christianity, due to eschatological expectations, many Christians chose to live in celibacy, for, "when they rise from the dead, they neither marry nor are given in marriage, but are like angels in heaven" (Mark 12: 25). In the beginning, both celibate men and celibate women lived in the same communities and this cohabitation of the sexes was viewed as involving a more rigorous ascetical effort. Thus was created the institution of *syneisakton parthenon* or the *subintroductae* (celibate women cohabitating with clerics or monks), which, however, was condemned by the First Ecumenical Council in 325 (canon 3).

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See also **Marriage; Priesthood**

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CENSORSHIP

Censorship is a means of preventing the expression of ideas, speech, or behaviour. Social, religious, political, military, and other authorities practise censorship in the name of the common good of society, seeking to protect it from heresy, obscenity, treason, or ideological error. In one form or another censorship has existed universally throughout Greek history.

Most of the censorship among the ancient Greeks occurred over religious and political ideas. The common charge was impiety (*asebeia*). Since they believed that the gods could actively help or harm the city state, impious behaviour that might invoke divine wrath was punished. Sparta imposed a rigid system of censorship to protect its militarism: books, music, and even learned men were banned. Greek tyrants exercised censorship to silence and eliminate their opponents. Generally speaking, under the tyrants, and many other rulers, censorship was identical with harsh repression.

Artists were not usually censored, but one notable exception in the first half of the 4th century was the case of the Athenian courtesan Phryne, who was charged with impiety because she modelled for a nude statue of Aphrodite by Praxiteles. Hyperides, pleading her case, tore her clothes off at the height of his defence, and asked the all-male jury if there was anything about her body that was offensive to the gods or man. She was rather quickly acquitted.

Censorship of playwrights occurred on a number of occasions. Euripides, who played no active political role, was charged with *asebeia* by Cleon, as were other dramatists including Aristophanes. Humour was sometimes used to censure behaviour through the weight of public opinion, becoming

thereby an unofficial form of censorship to those afraid of being satirized. Those mocked would occasionally seek to punish the jokers. Plato in the *Laws* advocates censorship of those forms of comedy that are cloaks for vicious personal attacks. Tragedies could also be banned. In 493 BC a tragedy written by Phrynichus and produced at the Dionysia on the theme of the failure of the Ionian revolt, and the fall of Miletus deeply moved the audience; fearing turmoil, the authorities fined Phrynichus and banned the play.

Athens, though democratic, censored many thinkers, artists, and intellectuals; they were exiled, imprisoned, or executed, or they took flight. Aeschylus was accused of violating the secrecy of the Eleusinian mysteries. Phidias was also accused of impiety and fled to Olympia. Protagoras, the famous sophist, was censored for his remark "Man is the measure of all things." Accused of atheism, he was banished from Athens and certain of his books were burned.

The beliefs of the Greek philosophers laid them open to various charges. Xenophanes criticized the morality of the Olympian gods as portrayed by Homer and other poets, arguing that their behaviour was shameful. This generated complaints of atheism (impiety) against him. Similarly, Anaxagoras of Clazomenae (*c.*500–428 BC) had argued that the sun was a hot rock. Convicted of impiety, he was banished from Athens and died in exile at Lampsacus. The real motive for the prosecution was probably to embarrass his patron Pericles.

The most famous case of censorship of a philosopher was the trial of Socrates on charges of corrupting youth (the moral charge) and impiety (the religious charge). The resulting judicial murder on these trumped-up charges was to have a profound influence on many including his most famous pupil, Plato. Oddly it is Plato who in the *Apology* stated the implications of a refusal to accept censorship, and later in the *Republic* himself instituted a system of censorship.

Plato's *Republic* has been widely read since it was first written and it has influenced many who would seek to impose censorship. Plato believed that whatever entered the soul would either develop it or corrupt it. In his utopian Republic a system of censorship is described that would mould the minds of all citizens, but especially the Guardian class, through a system of censored education. This included censorship of music, for Plato believed that music could have a profound impact on the soul and that it was important that the right music be heard at the right time. It should be noted that on several occasions intellectuals sought to censor those they disagreed with; Plato, for instance, wanted to burn the works of Democritus.

Aristotle also advocated a form of educational censorship in his *Politics*. Following the death of Alexander the Great, Aristotle himself became a victim of censorship. He was charged with impiety, but fled "lest Athens sin twice against philosophy".

During the Hellenistic period many states adopted a policy of punishing external political threats quickly, but they usually left native populations and cultures alone. One notable exception was the Seleucid policy of forced Hellenization, which censored any opposition to assimilation. This policy was violently resisted by conservative Jews, whose resistance and success in arms is described in the books of Maccabees and still celebrated at the festival of Hanukkah.

The establishment of great libraries at Alexandria and elsewhere led to two forms of literary censorship. When editors collated manuscripts, they often found variants in the copies and decisions had to be made about which was the "correct" version. Editors could also make important changes when issuing new editions of older works and thereby influence the interpretation of the text.

The other form of literary censorship was mob rule. On a number of occasions mobs or conquerors sacked and burned libraries. The library at Alexandria was damaged and burned during Julius Caesar's siege in 42 BC, by Christians in AD 391, and by Muslims in AD 642. In the Christian era political charges were brought against missionaries and other Christians. Because the worship of the emperor was equated with political loyalty, the Christian refusal to comply led to their persecution – in effect a violent form of censorship. St John was exiled to the island of Patmos and some scholars believe that the apocalyptic style of the book of Revelation was a religious cover that enabled the book to get past the censors.

With the conversion of the emperor Constantine and the legitimization of Christianity, a brief period of toleration occurred, which ended with the triumph of Christianity as the only licit religion. Under the emperor Theodosius I pagan religions were proscribed, sexual regulations were imposed, and the Olympic Games stopped. Theodosius, like Constantine before him and others after him, repressed unorthodox beliefs. The union of Church and state meant that heresies contrary to the Nicene Creed were viewed as political opposition and thus deserving of censure. The emperor Justinian I, seeking political unification through theological orthodoxy, also persecuted heresies, and he closed the philosophical schools in Athens (AD 529).

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See also **Atheism**

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CHAERONEA, BATTLE OF

Battle fought between Macedonians and the southern Greeks in 338 BC

It was in the territory of Chaeronea on 2 August (or possibly 1 September) 338 BC that the decisive battle was fought that enabled Philip II of Macedon to bring the Greek homeland under his control.

When Philip negotiated the peace treaty that ended the first war with Athens in 346 BC, his aim seems to have been to win the Athenians' friendship and cooperation, and he insisted that the treaty should be accompanied by an alliance. It failed, however, to effect a real reconciliation. The Athenians could not forget what they saw as his treachery over Amphipolis in 357 BC and they were not reassured by his treatment of their Phocian allies in the immediate aftermath of the treaty's conclusion. Thereafter, although in 344 BC he made an apparently genuine attempt to allay the Athenians' suspicions by offering to amend the peace terms, Philip persistently intervened in Greek affairs in ways that enabled Demosthenes and others at Athens persuasively to depict him as untrustworthy and hostile. In 340 BC he began to threaten the Athenians' corn-supply route from the Black Sea and attacked Perinthus on the Propontis (Sea of Marmora) and Byzantium. His failure to take either city and their own earlier success in expelling his friends from Euboea encouraged the Athenians, who at once declared war when Philip seized their corn fleet near the Bosporus in September.

To wage war positively, Philip needed to threaten Athens, but his old allies the Thebans had recently seized the pass of Thermopylae and seemed likely to bar his way (previously, in 346 BC, a treacherous Phocian general had enabled him to take it and subdue the Phocians). However, a dispute in the Delphian Amphictyony, of which he had been a member since 346 BC, led to a sacred war being proclaimed against Locrian Amphissa and, after the failure of the Amphictyons' first campaign, Philip was given the command.

In autumn 339 BC he advanced over the difficult pass into Doris, ostensibly to attack Amphissa, but unexpectedly turned eastwards down the Cephisus valley and took Elatea on the road from Thermopylae to Thebes, demanding that the Thebans assist him or at least facilitate his invasion of Attica. Demosthenes persuaded the Thebans to refuse and an Athenian force moved into Boeotia. Philip made no further move until the spring of 338 BC, when he took Amphissa. He then made a final attempt to achieve his aims without a battle, but his offers were rejected at both Thebes and Athens; he advanced into northwest Boeotia to find that his enemies were barring his way in a gap of about 2.5 km between the Cephisus and the low hills to the west.

In view of the battle's importance, the information provided by the sources is disappointingly meagre. It was a characteristically Greek head-on clash between two armies consisting of hoplites, heavily armed infantry in close formation, but there is no agreement on their relative strengths. Diodorus Siculus (16. 85) says that Philip with "more than 30,000 infantry and no less than 2,000 cavalry had the advantage in numbers", while Justin (9. 3) gives the Greeks numerical superiority, a conclusion suggested by the incomplete figures in Plutarch (*Demosthenes*, 17). According to Demosthenes' speech *On the Crown*, contingents from Euboea, Achaea, Corinth, Megara, Leucas, and Corinth supported the Athenians and the Thebans.

As to the disposition of the forces, Diodorus (16. 86) says that Philip faced the Athenians on one wing and his son Alexander faced the Thebans on the other, but gives no further details; Plutarch, however, links Alexander with the river Cephisus on the Macedonian left (*Alexander*, 9).

Diodorus writes in general terms of the fierce fighting, both sides for a while having "hopes of victory", before Alexander's men gradually broke down their opponents and put them to flight (Diodorus' words give no support to the modern theory that his cavalry broke the Theban hoplites), while Philip did the same to the Athenians; although, according to Polyaenus, the collector of military stratagems writing in the 2nd century AD, this was only after a feigned retreat had lured them up a slope to disrupt their order – the only detail of the action provided by the sources.

Information about casualties is also sparse. The only figures in the sources are for the Athenians, more than 1,000 dead and at least 2,000 captured (Diodorus, 16. 86). Theban losses were probably heavier and Plutarch (*Pelopidas*, 18) reports that the Theban Sacred Band of 300 picked hoplites were totally destroyed, although excavations beneath the Lion monument erected in their honour revealed the remains of only 254 bodies.

Philip's victory was so emphatic that he did not need to press on to attack Thebes and Athens. The Athenians prepared to defend their walls, but, still preferring to win their cooperation rather than to crush them, the king paid the due honours to their dead and released their prisoners without ransom. Thereupon they readily accepted his peace terms, agreeing to renew their alliance with him and to dissolve what was left of their maritime confederacy in return for keeping inviolate their territory and institutions. The Thebans were less fortunate, having to ransom their prisoners and accept both a Macedonian garrison and an oligarchic regime dominated by Philip's friends. He then installed a garrison in Corinth and secured friendly regimes in other states, encountering resistance only at the borders with

Sparta, where he used a little force to secure the frontiers of the Spartans' neighbours, but otherwise ignored their continuing defiance.

His military control established, Philip ensured his political supremacy by organizing a settlement along the lines of the earlier "common peace" treaties, designed to secure the peace and the loyalty of the Greeks. Confident of his domination, he persuaded them to appoint him leader of a Panhellenic invasion of the Persian empire. After his murder in 336 BC, the decisive quality of his victory was further shown in the meagre support mustered by the Thebans for their rising against Alexander the following year. Macedonian domination was reemphasized by their swift suppression and the total destruction of the city at Alexander's hands, although it was never accepted and was seriously challenged in the confusion following his early death in 323 BC. Greek freedom was never fully restored, not even in the brief period (243–224 BC) when Macedonian garrisons failed to hold Corinth, and in 196 BC the Romans took indirect control of the peninsula, formally annexing it in 146 BC.

The significance of Philip's victory has continued to be recognized in the modern world. In his tenth sonnet (pub. 1645) John Milton referred to it as "that dishonest victory at Chaeronea, fatal to liberty" and George Grote, the first great British historian of ancient Greece, called Philip "the destroyer of freedom and independence in the Hellenistic world" (*A History of Greece*, 1846). The Lion monument was seen by Pausanias in the mid-2nd century AD, but was later demolished. Its fragments were accidentally discovered by the traveller George Lidwell Taylor in 1881, and it was restored and replaced on its ancient plinth beside the old main road north from Levadia by the Greek Archaeological Society in 1902–04.

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CHALCIDICE

Region of northern Greece

Lying as it does beyond the land routes that cross Macedonia and being separated from the rest of the country by natural barriers, Chalcidice has had a history that differs from that of mainland Macedonia. The western part of the country was closely associated with Thessalonica: whoever was in control of the city usually had control of western Chalcidice. Chalcidice as a whole is particularly rich in timber and minerals, which is why all powers with an interest in the north Aegean area made efforts to gain control of the region.

Chalcidice first entered Greek history in the 8th century BC with the founding of the first Greek colonies. The country was colonized by the Ionian cities of Euboea, notably, though not exclusively, Chalcis (which provides the etymology of the name Chalcidice). There was only one Dorian colony in Chalcidice, Potidaea on the isthmus of the Pallene peninsula, which was founded by Corinthians *c.*700 BC. Most significant of the other Greek colonies were Olynthus in southwest Chalcidice, Mende and Scione in the Pallene peninsula, Torone in the Sithonia peninsula, Acanthus and Stageira (birthplace of Aristotle) in eastern Chalcidice. The Greek colonization was mainly of an urban type and localized in the coastal areas of the country. An exceptional case was the colonization by Chalcis of rural southwestern Chalcidice which expanded over the area around Olynthus. There settlers from Chalcis lived side-by-side with the non-Greek Bottiaeans. The Greek colonies of Chalcidice became bridgeheads for the diffusion of Hellenic culture in the hinterland. The first to receive cultural influence from the Greek colonists were the earlier settlers of Chalcidice, the Thracians, Bottiaeans, and Pelasgians; they had become completely Hellenized by the Hellenistic era when Chalcidice became an integral part of the Macedonian state.

In the aftermath of the Persian Wars the cities of Chalcidice were included in the Athenian sphere of influence and all of them joined the Delian League. Events in Chalcidice were among the causes for the outbreak of the Peloponnesian War, as Potidaea was encouraged by its mother-city Corinth to break away from Athenian control in 432 BC. Athens sent an expeditionary force against Potidaea and managed to capture it after a two-year siege. The hostility to Athens, however, was not confined to Dorian Potidaea, but spread among the Ionian Chalcidians as well. Following the advice of the Macedonian king Perdiccas II, an enemy of Athens, the Chalcidians of the area around Olynthus were resettled inside the town in 432 BC, increasing its size and strength and making it a stronghold of anti-Athenian sentiment. More Chalcidian cities reversed their allegiances during the campaign of the Spartan general Brasidas between 424 and 422 BC. The cities that revolted against Athens, starting with Olynthus, made up the nucleus of the Chalcidian League which, after the end of the Peloponnesian War, expanded over the entire region. With a foreign policy dictated from Olynthus, the Chalcidian League built up particularly strong armed forces and, by switching alliances between Sparta, Athens, Thebes, Macedonia, and the Thracian kingdoms, played a leading role in north Aegean politics during the first half of the 4th century BC.

Chalcidian power was challenged when Macedonian imperialism took shape during the first years of Philip II's rule. His first involvement in the affairs of Chalcidice took place in 357 BC when he drove the Athenians out of Potidaea on behalf of the Chalcidian League. Soon, the cities of Chalcidice themselves became victims of Macedonian expansionism, as Philip occupied one after another. Faced with this threat, Olynthus turned for help to its old enemy, Athens, and this provided the occasion for Demosthenes to write his three renowned *Olynthiac* orations urging his fellow citizens to support by all means their former enemies in Chalcidice. Nevertheless, Olynthus fell in 348 BC, Chalcidice became an integral part of the Macedonian state, and, later on, was incorporated into the Roman province of Macedonia. The Hellenistic era is marked by the development of Cassandreia (founded by Cassander in 316 BC), which became one of the major cities in Macedonia and one of its few Roman colonies (Pella, Dion, and Philippi were the others).

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CHALCIS

City in Euboea

Chalcis is located on the narrowest point of the Euripus and is the capital of the district of Euboea. Today it is a bustling capital city of about 50,000 inhabitants and the town profits from trade in several important commodities (including livestock, butter, and agricultural tools). Modern Chalcis obscures the remains of the ancient city, which was famous for its manufacture of bronze (the city may have received its name from this trade, since *chalkos* means "bronze"). The Mycenaean city praised by Homer (*Iliad*, 2. 540) has yet to be discovered, but some ancient remains from the late Geometric period on have been found in the area of the modern town.

Chalcis played an important role in the developments of Geometric and Archaic Greece. The inhabitants were known for their commercial enterprise (including trade in pottery and metalwork) and colonizing ventures (founding colonies and trading posts on the coasts of Sicily, Italy, Chalcidice, Thrace, the islands of the Aegean, and possibly Syria). Perhaps most famous, while at the same time least understood, is the role that Chalcis played in the Lelantine War with Eretria. Apparently, during the late 8th century BC Chalcis and Eretria were in competition for land and power, which led to a war over the rich Lelantine plain. Strabo (*Geography*, 10. 1. 9) says that this plain was famous, among other things, for its curative hot-water fountains, which were even used by the Roman general Sulla. This early Hellenic conflict over the Lelantine plain involved, at least, Miletus, which supported Eretria, and Samos, which supported Chalcis. Thucydides implies that numerous other states were involved. While the 8th-century victor is unknown, Chalcis seems to have held the plain in the 7th century BC.

Chalcis was ruled by a monarchy until the 7th century BC, when its last king Amphidamus was killed in battle. (Aristotle, in *Politics*, 1304a, mentions a later, but otherwise unknown tyrant, Phoxus, who was overthrown by the elites of the city.) The aristocracy then took over, and eventually supported the Athenian tyrant Hippias who fled there after his expulsion from power. Tragically for their independence, the people of Chalcis allied with Boeotia against Athens, partly in an attempt to restore Hippias. The Athenians then attacked and defeated the Chalcidians, took their land for the settlement of 5000 cleruchs, dismantled their navy, and assumed control over their colonies in Italy and Sicily. The Athenians, proud of their success against Chalcis, set up a chariot on the Acropolis and inscribed it with news of their victory (Herodotus, 5. 77. 4; Diodorus, *Historical Library*, 10. 24. 3). In 480 BC the people of Chalcis supported the Athenians against Persia and sent at least 20 ships to the Greek fleet. Soldiers of Chalcis also fought in the Battle of Plataea.

Demosthenes in his orations on *Philip, On the False Assembly*, and *Against Midias* highlights the role that Chalcis played in early Macedonian attempts to influence and control Greece. Originally Callias, the general from Chalcis, supported Philip, but he then turned against Macedon in a successful attempt to rid the Euboean cities of Oreus and Eretria of tyrants. Nevertheless Philip took the city and garrisoned it in 338 BC. It remained important as a strategic control point and trade centre until 146 BC, when it was attacked and severely damaged by the Romans.

Once in the Roman sphere, the city, and Euboea, first became part of the province of Macedonia, and then in 27 BC the island became a part of the province of Achaea. Chalcis, due to its strategic location, remained economically viable throughout the Roman period. During the early Byzantine period, pagan temples were replaced with Christian monasteries and churches. By the 9th century AD silk was crucial to the economic life of the provincial Byzantine nobles in Chalcis. (In 1147 Roger II, king of Sicily, used his army to kidnap silk workers from Chalcis.) The Venetians captured and fortified the city in 1210, and made it the capital of Negroponte ("Black Bridge", referring to the whole of Euboea), the name deriving from a corruption of the Greek *ston Egripo* ("on the Euripus") and the Italian *ponte*, referring to the movable bridge built by Justinian. After a brutal battle in Chalcis against Sultan Mehmet II in 1470, the town fell to the Turks and then became the headquarters of *kaptan pasha* (admiral). The remains of the Turkish fortress, built in 1686 on top of the castle of Karababa (originally designed by the Venetians), apparently rest on even more ancient foundations – perhaps those of a Macedonian fort built *c.*334 BC. Chalcis remained in Turkish hands until 22 February 1833 when at last Chalcis and Euboea were freed from external rule, and Euboea was declared part of independent Greece.

The bridge spanning the Euripus channel at Chalcis also has an interesting history. The first fixed bridge was wooden, built in 411 BC, partly to interfere with Athenian maritime trade. In 334 BC towers, a wall, and gates were added to strengthen the defensive capabilities of the bridge. This structure remained more or less intact until Justianian replaced the fixed structure with a movable wooden bridge (intended to facilitate waterborne traffic).

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CHERSONESE, THRACIAN

The Thracian Chersonese, now known as the Gallipoli (Gelibolu) peninsula in modern Turkey, is a long, narrow peninsula forming the European side of the Hellespont (Dardanelles) and connecting the Sea of Marmara with the Aegean. It was always important as a wheat-exporting region, but even more because of its strategic location as a crossing point between Europe and Asia; before long, this attracted Greek colonization, mainly by Aeolians from Lesbos and Ionian Greeks from Miletus as early as the end of the 8th and the beginning of the 7th century BC. Attic black-figure vases started to reach the area from 600 BC, showing an Athenian interest in it that was to continue for centuries: probably already in the 6th century the Chersonese was a strategic point on the route along which grain imports vital for Athens moved (by the 4th century Athens imported about half of the grain it needed from the Black Sea region). The Athenian aristocrat Miltiades the Elder established a domain of his own and built a defensive wall across the Bulair isthmus to protect it against the native Thracians; the Chersonese remained his family's property until his nephew Miltiades the Younger abandoned it to Darius I of Persia (*c.*492 BC). According to the account given by Herodotus (6. 34–40, 6. 103f.), the Chersonese was originally held by the Thracian Dolonci, who consulted the Delphic oracle when they were attacked by another tribe, and then invited Miltiades to protect them. Miltiades died childless, and in about 516 BC the sons of the Athenian tyrant Pisistratus sent Miltiades the Younger to take control of the region. He established himself by maintaining an army of 500 mercenaries and married the daughter of the Thracian king Olorus, who became his ally. He fled back to Athens, however, before the Persian advance, and for the next 30 years the Chersonese was under Persian control.

After the Persian withdrawal from the Greek mainland in 479, Athens quickly moved to regain control of the Chersonese – conquering the strategically important Sestus – to ensure the safe passage of Black Sea grain; the Chersonese became a part of the Delian League. Moreover, the sending of colonists there was an outlet for surplus population (among the Athenian settlements known as cleruchies founded about the middle of the 5th century BC there is a dispatch of 1000 cleruchs to the Chersonese). After the Peloponnesian War (431–404) Sparta briefly controlled the area, but it reverted to the control of Athens, who once more sent settlers there in 353 and cruelly punished recalcitrant Sestus. In 338 Athens finally ceded the area to Philip II of Macedonia; later it became part of the Seleucid empire. In 188 BC the Romans gave the Chersonese to the Attalid Eumenes II of Pergamum; it became Roman in 133 BC. Under Augustus it was turned into an emperor's estate.

Since the beginning of Greek colonization, a number of Greek towns developed on the Chersonese. Of the lesser ones (Alopeconnesus, an Aeolian foundation; Crithote, founded by the elder Miltiades and in ruins in Roman times) not much is known; more importance – varying over time – was attained by Sestus, Cardia, Elaious, and (since Hellenistic times) Lysimacheia and Callipolis (which gave the peninsula its modern name).

Sestus was situated at the narrowest part of the Hellespont (just opposite Abydus) and therefore provided the best point of departure to and from Asia; originally a Thracian settlement and mentioned already in Homer's catalogue of the Trojan army (*Iliad*, 2. 836), it was colonized by the Lesbians in about 600 BC. In 480 BC Xerxes built his naval bridge there, and in 334 BC Alexander the Great crossed from there over to Asia. In 365 BC Sestus was held by the Persian satrap Ariobarzanes; in 360 BC the Thracians conquered the city. Under Attalid rule, Sestus seems to have retained a certain autonomy and minted its own coins; this stopped only in AD 250, when the city fell into decay. In the 6th century AD Justinian erected a fortress above the remains, and the place again had some importance in the fighting between the Latin emperors based in Constantinople and the Byzantine emperors at Nicaea in the early 13th century. As the Chersonese has not yet been much explored archaeologically (access to this military area of modern Turkey is restricted), the precise location of Sestus remains unknown.

Cardia, founded by the Milesians and occupied by the elder Miltiades and his colonists in 560 BC, had a strategic location on the west coast of the Chersonese where it opened up into mainland Thrace. In the Peloponnesian War Cardia was an Athenian naval base. Lysimachus destroyed it in 309 BC to incorporate its inhabitants into the newly founded Lysimacheia.

Elaious, situated at the southern tip of the Chersonese and dominating its entrance, was probably also an Athenian foundation and used by Miltiades as a harbour; it was famous because of its ancient sanctuary of Protesilaus (perhaps identical with the prehistoric tumulus of Eski Hisarlâk), which was pillaged by the Persian Artayctes, but apparently continued to exist until late antiquity; Alexander the Great sacrificed at Protesilaus' tomb before crossing over to Troy. Elaious served as an Athenian naval base in the Peloponnesian War and was a member of the Second Delian League from 375 BC; when the Chersonese became the property of the Thracian king Cotys I, Elaious together with Crithote (see above) remained with Athens. Elaious still played a role in the battles between Constantine the Great and Licinius in AD 323 and was, like Sestus, refortified by Justinian.

Lysimacheia was founded at the northern end of Chersonese (near Cardia) in 309 BC by Lysimachus, who intended it to be his capital. After his death in 281 the city passed through several hands and was finally destroyed by the Thracian king Diegylis in 144 BC.

Callipolis, mentioned by sources only since the 3rd century BC (it was conquered in 209 BC by Philip V of Macedon), acquired greater importance in later antiquity when Byzantium became capital of the eastern empire.

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CHERSONESUS

City in the Crimea

Chersonesus was a Greek colony in the southwest of the Crimea peninsula (near the modern city of Sevastopol). Throughout antiquity it had an important strategic position: whoever held the city had control over the northwest section of the Black Sea, i.e. the Danube delta and the entrance to the great northern gulf which receives the waters of the Dniestr, Bug, and Dniepr.

Until recently it was commonly agreed that Chersonesus was a Dorian colony, founded by Heraclea Pontica together with Delos in the later 5th century BC and that there had probably been an earlier, small Ionian emporium. New excavations, however, have brought to light Ionian and Attic black-figure vases and terracottas of the last quarter of the 6th century BC as well as a series of spectacular ostraca of the entire 5th century, showing that the colonists had the Milesian alphabet, but used chiefly Dorian names. This new evidence proves that already in the last quarter of the 6th century BC not only Heracleots but also Ionians from the south shore of the Pontus took part in the foundation of the polis. This earlier dating was confirmed when in 1986 an intact stratum of the Archaic period (containing the traces of a sanctuary of the end of the 6th century) was found in the northeast part of the city.

Chersonesus soon seems to have acquired a large territory. In the 4th century BC the city state covered most of the southwest Crimea and its fertile coast, including towns like Kerkinitis and Kalos Limen. Fortified farms with towers were built in this area, and at the same time the production of local amphorae began (for exporting wine). Coins were also minted from the 4th century BC.

In the 3rd century BC, however, the city state was badly affected by Scythian and Sarmatian invasions. Archaeological evidence shows that all surrounding settlements were destroyed and burned: several farmhouses contained human skeletons (apparently victims of a surprise attack) and in western Crimea coin hoards were found, hastily buried by the inhabitants. In Chersonesus itself the people, apparently expecting further attacks, built a new line of town walls from grave stelae of the city's necropolis. Chersonesus never fully recovered from this destruction; its agricultural settlements were in ruins, fields and vineyards destroyed, the export of goods and the production of amphorae almost brought to a standstill. At the end of the 2nd century Mithridates VI of Pontus protected the city against the Scythians, but Chersonesus lost its external territories; later it was integrated into the Bosporan kingdom by Asandros. When the Scythians besieged the city again in AD 60/61, Nero installed Roman soldiers and a naval detachment. Under Hadrian the Bosporanian king Cotys II also controlled Chersonesus; Antoninus Pius re-established the city's independence.

In the 2nd century AD Chersonesus was the starting point for the conversion of the Crimean population to Christianity. It was here that the banished bishop of Rome, St Clement, was martyred during the persecutions under the emperor Trajan. By the beginning of the 4th century Christianity was firmly established in Chersonesus.

During the Byzantine period, the city – now called Cherson (this name is attested at least since Hadrianic times) – gained great importance because of its strategic position in the empire's northern defence system and its control of the major sea routes. The Hellenistic town walls were repaired at the end of the 5th century and reinforced with towers and bastions in the reign of Justinian; further restorations took place in the 7th and 8th centuries. Moreover, between the 5th century and the end of the 10th some 30 churches were built in Cherson, among them four luxurious basilicas and a cruciform church. This last was discovered in 1897 and had an altar containing a silver reliquary bearing a monogram, bust, and control stamps of Justinian I. The city seems also to have been a place of exile for prominent persons, among them the pope St Martin (AD 655) and the emperor Justinian II (695). In the 8th century Cherson belonged to the Khazars, but Byzantine rule was reestablished in the earlier part of the 9th century, and for the next three centuries Cherson was again the most important outpost of Byzantium in the northern Black Sea. It became a centre for Byzantine diplomatic, ecclesiastical, and military activity in relation to the peoples of the steppe. Knowledge of them proved to be of great value to the monks Cyril (originally Constantine the Philosopher) and Methodios, who spent the winter of 860/61 at Cherson before setting out on their missionary work. In the 10th century Cherson was a focal point for relations between Byzantium and the fledgeling Russian state. It was here that in 988 prince Vladimir of Kiev was baptized by the metropolitan of Cherson and married Anna Porphyrogenneta ("born in the purple"), the sister of Emperor Basil II (976–1025); the prelates of the metropolitanate of Cherson then accompanied the couple to Kiev, where they founded the Russian Orthodox Church. The same Vladimir had shortly before conquered and destroyed Cherson, because Basil had at first reneged on his promise to send Anna as Vladimir's wife-to-be in return for his help against a mutiny in Cappadocia.

The Byzantines rebuilt Cherson, but it did not fully recover and its strategic importance further dwindled following the Byzantine reconquest of the Danube delta. In 1081 the Seljuk Turks captured Sinope, Cherson's main supplier of wheat, for the first time, and again definitively in 1194. With the fall of Constantinople to the Franks and Venetians in 1204, Cherson lost its main centre of support. For a time this role was filled by the so-called empire of the Great Komnenoi of Trebizond (which had come into being as a spinoff of the disintegrating Byzantine empire), but the establishment of new commercial outposts by the Genoese and Venetians contributed to Cherson's decline. In 1299 the city barely survived a destructive invasion of Tatars and Mongols. Byzantine sources last mention it in 1396; it was finally abandoned some decades later.

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CHILDREN

For Hellenic culture the family is central and childlessness a catastrophe. Men need children to inherit their property and perpetuate the paternal line, while the primary function of wives has been to fulfil this patrilineal ambition. The childless have resorted to remedies of varying efficacy, from the ancient practice of incubation (documented in inscriptions from the shrine of Asclepius at Epidaurus, 4th century BC: *Inscriptiones Graecae*, 4. 2. 121–2) to today's more sophisticated medical interventions, but, since the traditional purpose of marriage is to produce heirs, often the consequence of infertility has been marital separation. Children have been important to Hellenic society in terms both military and political: in the 4th century BC Dinarchus claimed that a man without legitimate issue could become neither an orator nor a general (1. 71) and in Sparta bachelors were mocked publicly, while temporary relaxations in marriage laws in times of war and depopulation reflect anxieties about maintaining the birthrate.

While Greek culture has regarded unproductive marriage as anomalous, the partible inheritance system (in which an estate is divided among all its legitimate inheritors with no rule of primogeniture) which pertained at ancient Athens and in the Hellenistic and Byzantine worlds, together with the problem of poverty and the obligation to dower daughters, meant that children were not always a blessing. Large families were (and still are) a luxury; Polybius in the mid-2nd century BC claimed that family planning led to prosperity (36. 17. 5). High infant mortality rates due to primitive obstetrics and medical care limited family size, but contraception was largely ineffective (one 4th-century BC Hippocratic text suggests a posset of beans and water: *On the Nature of Women*, 98) and adoption for the ancient and medieval Greeks was not a means of finding a home for unwanted children but of ensuring an heir for the paternal estate, the usual adoptee being a male adult. Indeed at Athens foundling children could not be adopted since the consent of the child's father was needed. Furthermore, while the orphans of Athenian citizens killed in battle were supported at the expense of the state (Thucydides, 2. 45), state-run orphanages that cared for abandoned children did not appear until the Byzantine era, and they were few and far between.

Since contraception was unreliable and celibacy not an option (for pre-Christian Greeks at least), the standard methods of disposing of unwanted children were abortion and infant exposure. Abortion, legal in Greece today, is condemned by Orthodox teaching. However, pre-Christian concerns about abortion centred on the issue of paternal authority and the potential destruction of heirs rather than the sanctity of human life – only fathers (or, if the father was dead, the child's or embryo's agnatic kin) could decide to abort or expose offspring, and the mother who attempted to appropriate this power of decision was liable to prosecution (see Lysias, frr. 8a, 8b). Exposure must be distinguished from infanticide, which in Hellenic society has been almost invariably the object of religious proscription. Infants were left typically in places where people went, and they were intended to be found. The usual fate of foundlings was slavery and, for girls, the brothel. Ambrose suggested that, while the poor practised exposure, the wealthy favoured (or perhaps had access to effective methods of) abortion (*Lex.*, 5. 58). At Sparta the decision to raise a child belonged not to its father but to the elders of his tribe. "Defective" infants were cast into the Apothetae, a chasm under Mount Taygetus (Plutarch, *Lycurgus*, 16).

Demographic evidence suggests that the Greeks of antiquity practised selective female exposure; a letter of the 1st century BC from a soldier to his wife orders her to expose their unborn baby if it turns out to be a girl (*Oxyrhynchus Papyrus* 744,). Indeed, Greek culture traditionally values sons more highly than their sisters, a partiality that illustrates the radical gender bias inherent in Greek society; at ancient Athens males alone could inherit and for Greeks ancient and modern the engendering of boys is a mark of masculinity. Even at the dawn of the 21st century sons may count for more than daughters; when asked how many children they have, Greek men may enumerate their sons only (see Vermeulen 1970).

The Greek Constitution now insists that both parents share equal rights and responsibilities in parenting (article 4, para 2, 1975) but earlier Hellenic society prioritized paternal authority. At Athens the father acknowledged paternity on the *dekate*, the tenth day after birth, while the formal rejection of an older child was possible (*apokeryxis*). In antiquity, as now, children were legal minors, subject to the authority of a guardian (*kyrios*), normally the child's father, although at Athens in the Classical period the archon was obliged to appoint a guardian – usually an agnatic male relative – for orphans. The children of divorced parents or widows belonged to their father's house and the modern assumption that children should live with their mothers in the event of marital breakdown or paternal death represents a radical reversal of ancient practice. Yet the trend has its roots in late antiquity; Byzantine law insisted that stepfathers adopt the children of a wife's previous marriage.

At Athens sons became their own *kyrioi* when they attained their majority (at about 18), although daughters, being perpetually legal minors, remained throughout their lives under the guardianship of either their male natal kin or their husbands. Although adult sons were legally independent, filial obligations remained strong; honour was due to one's parents as to the gods and sons could be disfranchised for mistreating their parents (Demosthenes, 10. 40–41; Lysias, 13. 91). In the Byzantine period the Roman law that legally subordinated adult children to their fathers (*hyperexousia*) was accepted by Justinian, and

later the *Prochiron* (907) required that sons desiring legal independence should be formally emancipated from paternal power, although Leo VI (886–912) granted legal independence to sons who had established their own *oikoi* (households). Paternal authority persisting into adulthood led to tensions (John Chrysostom claimed that sons preferred their fathers not to live too long in *Colosseos*, 1.3 – see *Patrologiae Cursus Completa, series Graeca*, 62. 303, edited by J.-P. Migne), yet the threat of disinheritance may have motivated sons to keep on good terms with their fathers – while the legal minimum to be divided among all legitimate sons was one-quarter (later one-third) of the paternal estate, the amount could be divided unequally (Justinian, *Novellae*, 115. 3).

The children of "illegitimate" unions were dealt with variously. At Classical Athens a child was a bastard (*nothos*) if he did not result from a union legitimized by *engue* (betrothal) or *epidikasia* (legal process) in the case of an *epikliros* (heiress). *Nothoi* born to free Athenian parents were not members of the *oikos* but could inherit a residual portion of their fathers' estates in default of legitimate heirs; Justinian also allowed illegitimate children to inherit in the absence of legitimate sons (*Codex Iustinianus*, 5. 27. 8). The treatment of children of concubines and slaves underwent various changes; at Athens in the 5th century BC the children of citizens and free alien concubines could perhaps be legitimized, although this was no longer possible in the 4th century BC. Children of citizens and slaves, however, were slaves and belonged to their owners. In the Byzantine period Constantine insisted that children of freedmen and slave women remain slaves (*Codex Theodosianus*, 12. 1. 1, 4. 8. 7), although later Justinian rendered such children automatically free unless this was proscribed by the father's will. In 479 Zeno legitimized automatically children of free men and free concubines, a law extended by Justinian in 539 to embrace children of slave concubines. Children born of two slaves were throughout the period owned by their parents' masters. In post-Solonic Athens the law debarred parents from selling their children into slavery (Plutarch, *Solon*, 23. 2) and Byzantine children could be neither sold nor abandoned, although in 329 Constantine legalized the sale of children with the right of later repurchase.

Ancient literary representations of children begin with that of Astyanax in the *Iliad*. Erinna mentions little girls who play with dolls and are afraid of the "bogeywoman" Mormo (*Distaff, Greek Literary Papyri*, 3. 120, 4th century BC), while the death of children, from the horror of infanticide (Euripides' *Medea* and *Hercules Furens*) to the accidental death of 119 schoolchildren on Chios (Herodotus, 6. 27) evokes pathos and often signifies the end of the paternal line. *Choes* (pitchers) of the Classical period and Hellenistic art exhibit a particular interest in children, while Christian iconography frequently represents the infant Jesus.

In antiquity children were considered wild (Plato, *Timaeus*, 44a–b). Education was essential to "tame" children and to prepare them for adult roles and responsibilities – politics and war for boys, marriage for girls. A child's first learning experience was at home where the women of the household played an important part in the transmission of culture through storytelling and religious instruction (Plato, *Laws*, 887d–e). Many mothers took their children's education seriously – in the 2nd century AD Plutarch mentions a mother educating herself in order to educate her children (*Moralia*, 14b–c) and advises that wetnurses, who in the past, when weaning occurred at the ages of 2 or 3, exercised a significant influence on their charges, should be Greek-speaking and of good character (*Moralia*, 3e). Boys were removed from the sphere of female influence at 7 or 8. The Spartan *agoge* (education system) separated boys from their families at the age of 7, while elsewhere boys whose families could afford it were educated at schools where Homer and, later, Christian texts such as the Psalms formed the basis of a literary education, although many Christians such as Basil of Caesarea found pagan texts morally problematic as a didactic tool. Military training was crucial for boys and institutionalized homosexuality was an educational feature of many Greek states including Sparta (Xenophon, 2. 12) and Dorian Crete (Ephorus, fr. 70. 149). Physical education at the gymnasium and social education at the symposium were usually the province of boys, but music and dancing were common to both sexes; Alcman and Sappho in the 7th century BC attest to girls' choirs. However for girls education was essentially domestic: spinning and weaving were taught at home and up to recent times girls had limited access to formal education. Indeed, until the late 20th century Greek families financed the education of their sons but seldom that of their daughters.

The children of the poor and slaves worked at home, on the land, or at a trade; a papyrus from the Hellenistic period documents the case of a slave child apprenticed to a weaver (*Oxyrhynchus Papyrus* 1647). Childhood was short for many children in the past; girls were married young (although *Peira*, 49. 22 describes penalties for those who married girls under 12) and in the mid-7th century 10 was the minimum age for taking monastic vows. The 20th century has seen the extension of childhood into late adolescence as a much greater proportion of children, girls as well as boys, remain in education longer, while the minimum age for marriage in Greece is now 16 (18 without parental consent).

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See also **Abortion; Adoption; Contraception; Divorce; Gender; Inheritance; Marriage**

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CHIOS

Island in the eastern Aegean

The island of Chios has been inhabited almost continuously from the Stone Age to the present day. This it owes at least in part to its fertile soil and to its geographical position, located in the eastern Aegean just off the coast of Asia Minor, from where over countless centuries it has been able to exploit the trade routes north to the Hellespont and the Black Sea and south, west, and east to the Mediterranean, the Levant, and Egypt.

The earliest evidence for human habitation comes from the cave site of Ayio Gala in the northwest of the island, and dates from the early Neolithic period in the 6th millennium BC. In the 5th millennium BC a settlement was also established at Emporio in the south, and continued in almost constant use through the Early, Middle, and Late Bronze Age. Then around 1100 BC Emporio, in keeping with other Mycenaean sites all over the Aegean, suffered catastrophic destruction by fire and abandonment by its population. Our understanding of the subsequent Dark Age period is confused, though probably around 1000 BC the island was colonized by Ionian Greek-speakers arriving from the west.

By the 8th century BC Chios shows evidence of increased activity, including the refoundation of a settlement at Emporio, the existence of a religious sanctuary at nearby Kato Phana, and clear indications of active overseas trade. The 7th century BC was a time of great expansion and development for the island, in terms both of its mercantile trade and also of its external cultural and political relations. Together with other Greek cities, it founded the trading station of Naucratis in Egypt and, joining with 11 other cities in the eastern Aegean, established the Panionium or league of Ionian states. By the Archaic period the island was united under the control of Chios town, situated in the middle of the east coast. This was a time of great prosperity, when Chios emerged as one of the leading naval powers in the Aegean. Its products of gum mastic, turpentine, decorated pottery, fine cloth, figs, and wine were exported widely throughout the Aegean and beyond. So famous, indeed, was its wine that Chian coins were recognized by their emblem of the wine amphora. In addition to its commercial activities, Chios also became renowned for its school of sculptors: Chian artists such as Archermus, Bupalus, Micciades, and Glaucus exerted a strong influence on Archaic Greek sculptural style and were much sought after for their work. Also by the 6th century BC Chios had firmly established itself in the Greek poetic tradition: claiming to be the birthplace of Homer, a claim strongly contested by neighbouring Smyrna, the island became home to the Homeridae, a school of rhapsodes who asserted their descent from Homer himself. In the Classical period, too, Chios' influence on the arts and learning remained strong: the tragic poet Ion, the historian Theopompus, and the sophist Theocritus all numbering among its sons.

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CHRONICLES

By convention, history writing can be classified as either annalistic (composed of brief annual entries) or narrative. The ancient Greek world provides the earliest European examples of both, on the basis of which the Greek-speaking medieval world of Byzantium developed Christianized varieties. Byzantine-style chronicles proved remarkably long lasting.

The earliest known Greek historical records are lists of public officials, such as the priestesses of Hera in Argos, the Athenian archons, or of victors in festivals, such as the Olympic Games. Such lists were kept in each community for local purposes and provided a basis for noting events of local significance. These were the first forms of chronicles. With the establishment of the multinational Hellenistic kingdoms in the wake of the conquests of Alexander it became of interest to establish synchronicities; hence the work of Timaeus (*c.*350–260 BC) and Eratosthenes (*c.*285–195 BC) on Olympic victor lists, which could function as a universal chronological framework within which significant events could be placed. The Parian Marble (of which two fragments survive, one in the Ashmolean Museum, Oxford, the other in the Paros Museum) lists a mixture of political, military, religious, and literary events from Cecrops, the first king of Athens, onwards, dated synchronously but correlated backwards from the archonship of Diognetus in Athens (264/63 BC, presumably the date of composition). Significant lists of rulers and dynasties, forerunners of the fully fledged chronicle, were compiled by such men as Apollodorus of Athens (*c.*180–120 BC), Castor of Rhodes (1st century BC), Manetho of Heliopolis (*fl.*280 BC), and Phlegon of Tralles (*fl.*AD 140).

These works of pagan late antiquity formed the background against which the (now lost) Christian *Chronicle* of Eusebius of Caesarea was written (two editions: before AD 303 and 325/26). Eusebius synchronized Old Testament and Graeco-Roman history into a continuous chronological sequence calibrated by years from Abraham and, from 776 BC onwards, by Olympiads. The Greek Eusebius has not survived. The work was in two parts, raw lists (surviving only in an Armenian version) and the chronicle proper (best preserved in Jerome's highly influential Latin translation). Its purpose was to demonstrate that God's plan for man's salvation encompassed the whole of history. Eusebius established a genre, the Christian world chronicle, which was the have a long history in the subsequent Byzantine centuries, though little has survived of his immediate successors (such as the Egyptian monks Annianus and Panodorus).

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See also **Historiography**

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CHRONOLOGY

By "chronology" we mean the division of time, the ordering of events and the intervals between them on a fixed scale. The natural world has three ways of marking the passage of time: the daily cycle of night and day, the monthly cycle of the moon, and the annual seasonal cycle of the sun. The ancient and medieval Greek world had several ways of marking the succession of days in the month or year and the sequence of years, and of dating historical events whether within a short or a long time-span.

From at least the 5th century BC the full day was divided into night and day, each of 12 hours whose length varied according to season and latitude. Hours could be measured by a sundial or waterclock, but for most people internal divisions of the hour remained imprecise, though considerable precision could be achieved for astronomical calculations.

The week is an artificial temporal division not used in the ancient world. In the Greek-speaking world of the Christian east Roman empire a seven-day week, originally Hebrew but then Christianized, came into use. Each day had a mystical and liturgical symbolism sometimes apparent in the names (e.g. Paraskeve, Friday, "preparation").

By the 5th century BC Athenian astronomers had become aware that the lunar month was 29.5 days long and the solar year 365.25 days. There was no universal calendar and each Greek community used its own month names and individual date for the new year. The months were normally named after the festivals that fell within them, or after a deity. In the Byzantine world local month names remained predominant until late in the 5th century AD, but thereafter the Roman month names (Ianouaraios, Februarios, etc.) gradually prevailed.

In the Graeco-Roman world of antiquity prior to the reforms of Julius Caesar (44 BC) the calendar year was frequently at variance with the seasonal and solar year, despite the addition (intercalation) of days and months at irregular intervals, often for political rather than calendrical reasons. After the reform the year consisted of 365 days with one day inserted in the month of February every fourth (leap) year, a system that remained in force generally until the reforms introduced by Pope Gregory XIII in 1582 (the Gregorian calendar), which removed leap-year status from century years, except for those divisible by 400 (e.g. 1600, 2000 etc.).

Between Meton (*fl.*432 BC) and Ptolemy (writing AD 146–170) an increasingly precise understanding of the lunisolar cycles was developed, giving rise to accurate predictions of eclipses, and also enabling public calendars to be set up that traced the movements of constellations throughout the year. In the Christian Byzantine empire lunisolar cycles were used to calculate the date of Easter (the results usually presented in paschal tables) and also to extrapolate to the date of Creation.

Dating of events in the short term in the ancient world (for legal documents, government decrees, some historical events) was normally by the year of the priest or magistrate into which they fell (e.g. Athenian archons, Roman consuls). Dynasties might be calculated roughly in terms of human generations. In the wake of the conquests of Alexander and the establishment of the Seleucid empire, a more precise reckoning by the Seleucid era (beginning from 312/11 BC) became widespread, together with an interest in establishing the synchronicity of rulers and events. Timaeus (mid-4th century–late 260s BC) constructed a synchronous list of Olympian victors, Spartan kings and ephors, Athenian archons, and priestesses of Hera; thereafter it became customary to date historical events in a longer perspective by years of the Olympic Games, i.e. by Olympiads. Eratosthenes in the 3rd century BC further refined these lists and replaced a mythical prehistoric chronology with one based on what was believed to be the historical date of the fall of Troy (1183/82 BC). Other eras were also used, notably one calculating from the foundation of Rome (753 BC).

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See also **Calendar**

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CILICIA

Region of southern Asia Minor

Cilicia commonly (but not invariably) names the area of southern Turkey bounded by the river Melas (Turkish Manavgat) to the west, the Taurus to the north, the Amanus as far south as Cape Rhosus (Hinzir Burnu) on the gulf of Issus to the east, and the Mediterranean to the south.

West of the river Lamus (Lamas) Cilicia is mountainous and the coastline mainly abrupt; it was named "rough" (Greek Tracheia); to the east as far as the Amanus it is a fertile plain (hence Greek Pedias). The mountainous mass of Rough Cilicia, jutting out into the sea, threatening not only Pedias but also the Pamphylian plain to its own west, difficult to penetrate or pacify, is a defining feature of Cilician history. Another is the location of Pedias on a main land route between east and west.

The Cilicians were an Anatolian people; Hittite and neo-Hittite sites have been uncovered (strikingly at Meydancik Kale near Gülnar and at Karatepe). Greek settlement began in the Archaic period at coastal sites in Tracheia (e.g. Kelenderis, Nagidus, Soli). Later legend attributed some native cities (Mallus, Mopsuestia, Olba, Tarsus) to Greek foundation in the heroic age. What history underlies this is obscure; a name resembling Mopsus (who figures in the legends) is borne by an ancestor in a royal inscription of the 8th century BC at Karatepe.

There were native kings at Tarsus under the Persians until the early 4th century BC. After Alexander's conquests control was disputed by the Seleucids and the Ptolemies. At first the whole was probably Seleucid; two of Seleucus Nicator's lasting monuments, Seleucia ad Calycadnum (Silifke) and the temple of Zeus at Olba, are in Tracheia. But by the middle of the 3rd century Tracheia had Ptolemaic garrisons which were ejected in 197 BC.

Seleucid weakness resulted in the pirate "kingdom" in western Tracheia around 140 BC. With the connivance or tolerance of other states the pirates grew in strength; only in 101 BC was a Provincia Ciliciae (which did not include Cilicia) created by Rome to deal with them. For the next 30 years efforts were unsuccessful. Meanwhile in 83 BC Pedias was conquered by Tigranes of Armenia. A pirate raid on Ostia in 68 BC provoked a decisive response from Rome in the appointment and successful campaign of Pompey the following year. Tigranes also withdrew from Pedias. Pompey resettled pirates in the cities of Pedias and eastern Tracheia (including Soli, refounded as Pompeiopolis) and organized Pedias as a group of city states; rougher territory to the east was handed to a local dynast, Tarcondimotus. A policy of leaving such territory to clients endured until the Flavian period.

The Provincia Ciliciae of 64 BC extended beyond Cilicia proper. Between 58 and 47 BC it included Cyprus, and between 56 and 49 BC stretched to Phrygia. Around 44 BC Pedias became part of the province of Syria. Soon after, Tracheia (excluding the free city of Seleucia) was given to Egypt. It remained under client kings for about a century after Actium (Amyntas of Galatia to 28 BC, Archelaus of Cappadocia and his son, also Archelaus, to AD 38, and finally Antiochus IV of Commagene to AD 72). The kingdom of Olba in eastern Tracheia remained under the native dynasty until AD 41 when it was given to Polemo II of Pontus. A number of cities of Tracheia were founded in this period, perhaps with civilizing intent; Titiopolis and Domitiopolis probably by Cleopatra; Iotape, Irenopolis, Germanicopolis (still Turkish Ermenek), and Philadelphia by Antiochus IV; and Claudiopolis (Turkish Mut) by Polemo II. Two uprisings by the tribes (in AD 36 and 52) were serious enough to be recorded by Tacitus and needed Roman troops for their suppression.

In AD 72 Vespasian deposed Antiochus IV and united Pedias and Tracheia (except its western fringe) in a single province of

Cilicia. Then they were divided again (perhaps in the mid-2nd century). Tracheia was thenceforth known as Isauria. In the second half of the 3rd century there were uprisings of the Isaurians and invasions by the Persians who in 260 advanced as far as Corycus and subsequently as far as Selinus. In the Diocletianic reform the province of Cilicia was subdivided, with Cilicia I having its capital at Tarsus and Cilicia II at Anazarbus. Both Cilicias and Isauria were part of Oriens and later were ecclesiastically subject to Antioch.

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CIMON *c.*510–*c.*450 BC

Athenian aristocrat

Cimon has not been as well served by ancient tradition as some of his slightly older or younger contemporaries, because his era of dominance at Athens fell slightly after Herodotus' period of focus, but slightly before that of Thucydides. Plutarch's *Life of Cimon*, which contains most of what we know of him, is much shorter than his *Lives* of Themistocles or Aristides. Although Plutarch did not lack sources, it is evident that Cimon's personality did not generate as much interest in later generations as those of his more intriguing adversaries Pericles and Themistocles.

A relative of Thucydides, Cimon was from a very distinguished Athenian family, the Philaidae. He was the son of one of its most distinguished members, Miltiades, who, as ruler of the Chersonese, had promoted Athens' colonial ambitions keenly until his support for the Ionian Revolt so angered the Persians that he was forced to escape to Athens (493 BC). The climax of his career was his generalship at the Battle of Marathon (490 BC), but his subsequent campaign against Paros for its Persian sympathies was a failure. At the instigation of Pericles' father Xanthippus, he was fined 50 talents, but died from a battle wound before he could pay it. Cimon inherited not only his father's debt, but also his policies of hostility to Persia and Athenian imperial expansionism.

After an impressive performance at Salamis, Cimon was made an Athenian envoy to Sparta in 479 BC, and his name is associated with the most important campaigns of the early Delian League, from 478 BC to 463 BC, working with its organizer Aristides, who is said to have championed the young Cimon as his ally against Themistocles. In 478 the Spartan general Pausanias was still in charge of the Greek forces, but according to Athenian tradition his arrogance began to alienate them, and they were won over by the kindness of the Athenian generals. Once the Spartans recalled Pausanias on a charge of treason, control over the anti-Persian operations was definitively ceded to Athens, thereby laying the foundations for Athenian dominance over the Aegean during the 5th century BC. Acquitted, Pausanias took Byzantium, but he was driven out by Cimon himself, who then triumphed in his father's old stamping ground by removing Eion in Thrace from Persian hands (476/75 BC). Soon after this, he won Scyros for Athenian colonists and, in an effective personal coup, returned the alleged bones of Athens' national hero Theseus to the city for burial, to great acclaim. Sources do not explicitly say that he led the early campaigns of the league to crush allied rebellion, at Carystus and Naxos (473–469 BC), but his usual enthusiasm for Athenian expansion makes his presence there very likely.

Soon after Naxos the Athenians undertook a major campaign in the southeast Aegean, perhaps to mollify allied discontent at their use of the league to police its own members. Cimon's greatest triumph followed at Eurymedon in Pamphylia (*c.*468 BC), when his troops wiped out the Persian fleet, and cities as far east as Phaselis joined the league. His generalship brought material wealth to Athens, and an immense sense of pride to a city that had been sacked by the Persians only some 12 years earlier, but was now carrying vengeance right into the Great King's territory. Cimon's comprehensive victory may be said to have paved the way for the Peace of Callias, *c.*450 BC, whereby Greek freedom from Persian interference was finally secured.

At this time, however, Cimon continued to pursue the Persians relentlessly, returning to the Chersonese and driving out those who remained, before besieging the Thasians who had now seceded from the league (465–463 BC). The Spartans, actively working against their former allies in the Persian Wars, had promised the Thasians that they would help them by invading Attica, but an earthquake and a helot revolt frustrated this plan. Meanwhile, Cimon crushed Thasos and returned to Athens, to he prosecuted (unsuccessfully) by the up-and-coming Pericles on a charge of bribery for having made no territorial gains in Macedonia. Unlike Pericles and others, Cimon clung to the old view that Sparta was Athens' partner, not its rival in Greek leadership (in spite of his service in the expansionist Delian League), and in 462 BC he persuaded Athens to help the desperate Spartans. It was perhaps while he was away that Ephialtes introduced the democratic reforms that took most jurisdiction away from the Areopagus and gave it to the people's courts instead: whether or not this was the cause, the Spartans decided that the Athenian army could not be trusted not to help the helots, and sent them away. This ignominious dismissal severely damaged Cimon's credibility in Athens, and, after a failed attempt to reverse Ephialtes' work, he was ostracized in 461 BC. Athens also broke irrevocably with Sparta by allying with its enemy, Argos.

Cimon's next known action was to patch up relations between Athens and Sparta with a five-year truce, *c.*451 BC. The two cities had been testing one another's strength throughout the decade, at the battles of Tanagra (won by Sparta) and Oenophyta (won by Athens), and after the loss of 200 Athenian ships in Egypt in 454 BC, both sides were ready for a brief respite. It seems clear that Cimon still hankered after the past when Sparta was an ally, not an enemy, and his last campaign was also a throwback to the 470s BC. He mounted another expedition to Persia to recapture Cyprus, but he died there, and aggressive Athenian expansion in the east ceased thereafter.

The sources, perhaps derived from Critias, say that Pericles instituted jury pay in order to counter Cimon's personal generosity. Cimon's family was wealthy anyway, and his huge campaign revenues brought him popularity as he opened up his estates to the poor, and gave them public dinners and financial handouts. Payment became necessary after the Ephialtic reforms, which brought a greater volume of business to the democratic courts, so that larger issues of practicality rather than small-scale politicking may have caused Pericles' move, but it is certainly true that Pericles opposed the traditional, almost feudal patronage practised by those from rich families, such as Cimon's, because this was damaging to democracy. A number of artefacts associated with Cimon indicate that he was keen to assert himself in a traditionally aristocratic manner: the Painted Stoa, commissioned by his brother-in-law, bore a picture of Marathon in which Miltiades was prominent, and a Delphic dedication associated a statue of Miltiades with those of Athena, Apollo, and the Athenian tribal heroes. By rehabilitating his father, Cimon augmented his own status as the inheritor of Marathonian glory over that of Themistocles, whose victory had been Salamis.

There is, therefore, some truth in the schematizations of later sources that pit Cimon the conservative against Pericles the democrat. His foreign policy was conservative in that it was based on traditional Greek affiliations at a time when new alignments were beginning which would lead to the Peloponnesian War. The names of two of his sons – Lacedaemonius and Eleius – are revealing. In other ways, however, he was as imperially minded as Pericles, leading the campaigns that created the Athenian empire, encouraging the Athenian naval activity that later writers associate with radical democracy, and vigorously opposing secession from the league. Both he and Aristides, though not as brilliant as Themistocles, played a huge part in the creation of 5th-century democracy.

SOPHIE MILLS

Biography

Born *c.*510 BC to a noble Athenian family, Cimon was the son of Miltiades, ruler of the Thracian Chersonese. As a general he actively pursued the war against Persia but was keen to retain Sparta as Athens' partner, not rival, in leadership of Greece. He was ostracized in 461 BC but recalled in 451 to mend fences with Sparta. He died soon after in Cyprus, attempting to recapture that island from Persia.

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CITIES

What is a city? Is it a community of buildings or a community of people? According to Aristotle, it is not a community of buildings but of people. For one could, for example, "enclose Megara and Corinth in a wall, yet they would not be one city". "But a city", he continues, "is a society of people ... not ... founded for the purpose of men's merely living together, but for their living as men ought" (*Politics*, 3. 9). On the other hand, when Pausanias, the 2nd-century AD traveller, came upon a little place in Phocis, he hesitated to call it a "city" (*polis*) as it possessed "no government offices or gymnasium, no theatre or agora or water flowing down to a fountain" (10. 4. 1). Gradually, "city", which is at the root of the word "civilization" (*politismos*), came to encompass both the buildings and the people of a permanent settlement.

In Mesopotamia evidence of permanent village agriculture dates back to 8000 BC and temple cities and city states date from 3500 BC. In Greece the earliest settlements were the Minoan (2000–1400 BC) and Mycenaean (1600–1050 BC) palace centres. At about 800 BC Archaic Greek societies began developing permanent city structures. While the Greeks did not invent the city as a form, they established it as a political institution. The polis, as an independent city state and a community of self-governing citizens, emerged in the Greek world in the 8th century BC. Its democratic underpinnings, governed by equality of all under the law (*isonomia*), were contrasted with the monarchical and despotic institutions of contemporary cities in Mesopotamia, Egypt, and the Persian empire.

Greek cities originated either from small villages that grew gradually, from several villages that came together to form a community (synoecism), or from colonial settlements. Athens was allegedly formed through synoecism. Colonial settlements, on the Ionian coast (modern Turkey in Asia Minor) and on the south Italian peninsula, were founded for purposes of commerce and retained ties to the mother city in mainland Greece. Many of the new settlements were planned on an orthogonal grid, while cities that evolved over time usually exhibited an irregular, "organic" street plan. Athens, established in Mycenean times, had an "organic" street plan that was first set out in the Archaic period. Miletus, on the coast of modern Turkey, was planned on an orthogonal grid by Hippodamus in 479 BC, following its destruction by the Persians in 490 BC. Though the ancient Greek cities possessed some of the characteristics associated with urban environments today – high concentration of population, division of labour, trade with other cities – they were all heavily dependent on agriculture. The connection of the city to the countryside remained most vital until the 20th century.

Of the approximately 700 cities of the Greek commonwealth in the Classical period, Athens was the largest and most famous. Public life took place in the Agora – the ancient civic centre and marketplace – while the city's tutelary goddess Athena was

honoured by the Periclean building programme on the Acropolis: the Parthenon (447–432 BC), the Erechtheum (421–405 BC), and the temple of Athena Nike (427–424 BC). In contrast to the magnificence of the public building programme, residential architecture remained humble and inward looking. In the Classical Greek city no individual, no matter how powerful, could attach his name to the new civic structures, as it was the state and the citizens themselves (the free, male residents) who commissioned and paid for all public buildings. That changed during the subsequent periods, when Hellenistic rulers and Roman emperors endowed several of the Greek cities with larger and more luxurious public buildings that bore their names: the stoa of Attalus, Hadrian's library, etc. These private donations eroded the democratic ideals of the Classical polis whereby all men enjoyed equal footing. This practice of privately funded civic structures, named after wealthy individuals or corporations, similarly marks the urban landscape today.

The insularity of the Classical Greek city states, which often resulted not only in competition but also in warfare among them, was transformed in the ensuing Hellenistic period. As a result of the successful military campaigns of Philip II of Macedon, most of central and southern Greece became subjugated to the Macedonian kingdom. Philip's son, Alexander III the Great, undertook a campaign of expansion to the east, creating a kingdom that stretched from Cyrene in North Africa to India. As Alexander considered his mission to be a civilizing one, albeit imperialist, he founded several new cities, thus spreading the Hellenic language and culture across much of the known world. These cities were normally laid out in a grid pattern, adjusted to the existing topography in each case. While their building programme was based on the Classical Greek city – with an agora, temples, theatres, and other civic structures – their political system differed drastically. Whereas the classical Greek city was, at least in principle, politically autonomous, the Hellenistic city was a dependent member of an extensive empire. Alexandria in Egypt, the first and greatest of Alexander's cities, was founded in 332 BC. It soon became one of the most important trading centres of the Mediterranean, and an eminent centre for culture and philosophical studies, its Neoplatonic schools eventually rivalling the philosophy schools of Athens. "Alexandria is situated, as it were, at the crossroads of the whole world, ... bringing together all men into one place, displaying them to one another, and, as far as possible, making them of the same race", wrote Dio of Prusa in his *Alexandrian Speech* (*c.*AD 69/79). Thessalonica, founded in 316 BC, also rose to prominence under Roman rule, becoming the capital of the Roman province of Macedonia and an important military and commercial centre. It maintained its commercial and administrative importance in the subsequent Byzantine and Ottoman periods.

Greece became a Roman province in AD 146, after a war in which the Romans destroyed Corinth. Under the Roman empire Athens, though now a provincial city, still enjoyed a special status as a result of its cultural eminence. While its political significance atrophied, its physical image was enhanced by the new buildings endowed by the various emperors and high-ranking Roman officials. A resurgence of its philosophy schools in the 4th and 5th centuries infused new blood into its economy, until the emperor Justinian ordered their closure in AD 519, condemning Athens to obscurity.

The next major city to rise to prominence in the Graeco-Roman world was Byzantium, a Greek merchant settlement founded at the end of the 8th century BC on the shore of the Bosporus. Chosen by emperor Constantine the Great (307–337) as a capital of the eastern Roman empire, it was aggrandized and inaugurated in 330 as Constantinople. Constantinople was endowed with a unique triple identity: Greek, Roman, and Christian. Hailed as "the New Rome", its political, legal, and building structure certainly justified that claim. Also part of that structure, however, were the earliest layers of its Classical Greek and Hellenistic foundation, and its newly acquired Christian identity. Constantinople became the centre of the Byzantine empire, diffusing its imperial, religious, and commercial power over a vast territory. It reached its zenith under the reign of Justinian I (527–65), maintaining a key role until the period of the Latin rule (1204–61). The weakening of the Byzantine empire finally led to the fall of Constantinople in 1453 to the armies of the Ottoman sultan Mehmet II.

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See also **Town Planning; Urbanization**

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CITY STATE

The city state (polis) was the prevailing political, cultural, religious, and social system among the Greeks from *c.*800 to *c.*300 BC. The map of ancient Greece was a mosaic of city states; each was independent, but some were linked with others by ties of kinship and military alliances.

The term "polis" originally apparently meant something like "the villages around". The Greeks used the term *synoikismos* to describe the unifying of the houses in the countryside (*oikoi*) and villages (*komai*) into a constitutional system (*politeia*). Most city states had an acropolis (a high city), a fortified area on a high rocky promontory overlooking the surrounding countryside, which served as a place of refuge in times of danger.

Geography was a factor in the rise of the city states, because the numerous islands of Greece, the very mountainous terrain of the mainland, and the isolation of small plains favoured small

local units of government. Another factor was the collapse of kingship late in the Dark Ages; by the historical period most city states were ruled by councils controlled by aristocrats.

The territory of each city state was small. Some were only a few kilometres square: Athens with 2600 sq km of territory and Sparta with 8400 sq km were among the largest. Physically the city state might look urban or be composed of villages without walls, as at Sparta. The population was generally small. Slaves and foreigners (metics) were excluded from citizenship, while women, children, and sometimes "the dwellers around" (*perioikoi*) were classified as second-class citizens. The full citizens (*politai*) of the polis were all males over the age of 18. Their births would be registered with the traditional brotherhood (phratry). Regardless of its location, the male citizens were the essence of the city state. They composed a corporate body, ordered by the principle of citizenship, which could be housed anywhere. All were expected to serve in defence of the city state.

The city states were varied and numerous, eventually numbering perhaps as many as 1200 or more. Their constitutions and history largely remain unknown. The Aeolian-, Ionian-, and Dorian-speaking Greeks developed different styles of city states; Athens and Sparta are the best known of the Ionian and Dorian types, respectively. Most of ancient Greek history is known through the histories of these two, the most famous; but other important ones included Corinth, Syracuse, Miletus, Ephesus, Thebes, and Chalcis. Tribal and cultic differences marked the city states with a jealous particularism. Most were isolated in small farming valleys with their own local shrines, laws, and dialects.

By the mid-8th century BC population increases led to the foundation of numerous colonies all around the Mediterranean, but especially on the shores of the Black Sea, in southern Italy, and in Sicily. Each of these usually became an independent city state. Sometimes the new colony was founded by two or more mother cities.

The government of most city states changed over the centuries. By the Archaic period most were ruled by aristocrats in a council, but an assembly of citizens and magistrates also participated in governing. In Athens the earliest council was the Areopagus, made up of elder statesmen; the members, archons, served for life. By the end of the 7th century BC growing tensions between the aristocrats and citizens from the lower orders, in Athens and other city states, often developed into class conflicts. When Solon was elected archon of Athens in 594 BC he began a programme of political reform that was to lead eventually to the establishment of Athenian democracy at the end of the 6th century BC.

Sparta resisted all reform and maintained an oligarchy based upon the laws of Lycurgus, which had organized the people into Spartiates (citizens), *perioikoi* (non-citizens with some rights), and helots (state serfs). There were two kings, elected from two royal families, who exercised limited power; one stayed at home and the other led the army into battle. Sparta was governed by five officials called ephors, elected to one-year terms by citizens, with the aid of a council. There was also a citizen assembly (*apella*).

War, an incessant feature of life, robbed the Greeks of their strength. During the Classical period cooperative efforts were made to limit the jealous particularism through leagues. While most were military alliances, some leagues served trade needs, and even managed some of the games. They included the Aetolian League, Boeotian League, Chalcidic League, League of Corinth, Delian League, Second Athenian League, Achaean League, Ionian League, and the Delphic Amphictiony, which managed the Pythian Games.

The sovereignty of the city states ended with the conquest of the Greeks by Philip II of Macedon in 338 BC. After the conquests of Alexander the Great, Graeco-Macedonian kingdoms were established throughout the empire. The individual Greek city states were never again strong enough to regain their original power.

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See also **Urbanization**

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CLASSICAL PERIOD *c.*479–323 BC

The Classical period of Greek civilization is framed by wars: at the beginning was the great conflict with the Persian empire culminating in the defeat of Xerxes' invasion of 479 BC; at the end was the war between Philip II, king of Macedon, and the alliance of Athens and Thebes, followed by the conquest of the Near East by Philip's son Alexander the Great. Undoubtedly these circumstances influenced the character of the period, though they are only one factor in its complex form. The period also witnessed the greatest achievements of the Greek city state and its varied political systems: in essentials, this was marked by the triumph of the voluntary cooperation of the free citizens who constituted these small communities over the monolithic and massive resources of an absolutist, autocratic empire. At the same time, however, the city state contained the seeds of its own

decline. The need to build a larger political organization strong enough to continue the combat against the Persians led to empire and hegemony within the Greek states themselves (particularly that of Athens, which dominated the first half of the period), and the subsequent rivalry and quarrels that weakened that unity following the great war between Athens and Sparta, and their resulting collective weakness in the face of the aggressive monarchy of Philip II.

Classical art and literature grew out of the developments of the preceding Archaic period, though political success engendered a new confidence. It is noticeable in the fine arts, in both sculpture and (in so far as the evidence for it has survived) painting. Already in the late Archaic period sculpture had been evolving away from its oriental- (and particularly Egyptian-) derived formalism towards greater naturalism. The stiff, formal poses of the Archaic marble statues give way to more complex ones made possible by the rapid development of hollow cast bronze. Indeed, the extremely elaborate poses of some early Classical statues, such as the *Discus Thrower* of Myron, seem specifically to illustrate their freedom from the restraints previously imposed by the marble block. This phase passed, and Classical sculpture is marked essentially by a relaxed, yet idealized, naturalism. But what were by repute its greatest achievements, the lost statues of gold and ivory (fixed on a wooden frame) made by Phidias as the focus of worship in the temples of Athena on the Acropolis of Athens and of Zeus at Olympia, must have had an awesome majesty and formality that transcended any natural representation.

Much of this sculpture was produced to satisfy the demands of official patronage rather than the private individual. Statues were set up as thank-offerings for victory, or to express the religious needs of the community, rather than as monuments to the prestige and power of ruling families. The city, the community, commissioned them, and the art reflected, very often, the political agenda set by the community itself. Not all of this was the triumphant militarism typified by Phidias' colossal bronze of *Athena the Champion* that dominated the Acropolis of Athens, and which was prominent enough to serve as a landmark to guide ships approaching the harbour of Piraeus, more than 6 km away. More subtle, and echoing the changed circumstances of the 4th century BC, was the personification of *Peace* and her infant *Wealth* made by Cephisidotus (of which later copies survive), while a surviving original bronze of *Athena*, plausibly attributed to the same sculptor, though armoured, seems to present no threat of military aggression. The emphasis, more and more, is on humanity, as in the *Hermes Playing with the Infant Dionysus* by Praxiteles, Cephisidotus' more famous son, which was found at Olympia and often thought to be an original, not a copy. But in many ways the logical and most influential development of Classical sculpture is seen in Praxiteles' *Aphrodite*, sensational in its own day on account of its nudity, and a forerunner of an endless sculptural interest in the naked female form (and, in this case, supposedly modelled not on an imaginary goddess but on the sculptor's own mistress).

Despite this, sculpture was very much a public art, and even the *Aphrodite* was purchased by the people of Cnidus in Asia Minor, to be set up there in a sanctuary of the goddess, where the statue became a tourist attraction. Statues were placed in religious sanctuaries and in public places such as the agora, a term better translated as the civic centre rather then the marketplace of the Greek cities. Sculpture also adorned public buildings, particularly temples, which, continuing the conventions of the Archaic period, carried relief decoration on their friezes, and sculpture in the round in their pediments, the supreme examples of the Classical period being the temple of Athena, the Parthenon, on the Acropolis of Athens, and the slightly earlier temple of Zeus at Olympia. Certainly at Athens, and in all probability at Olympia, this work did not simply pay tribute to the gods, but at the same time celebrated victory over the barbarian, the Persian invader. It is typical of the Classical attitude, however, that it did this by allegory (for example, Greeks defeating legendary Amazons) rather than by direct representation, an indication that the Greek approach was now radically different from that of the Near Eastern predecessors.

Painting, we know, was used to decorate public buildings, such as temples, porticos, and feasting rooms, such as at the entrance (Propylaea) to the Athenian Acropolis. Executed on wooden panels or plastered walls, it was essentially a fragile medium and is now largely lost. Decorated vases, their pictures fired in the kiln, give us some idea of developments – the move towards greater realism, perhaps in advance of sculpture, and the illusion of three dimensions and depth. The panel-painting technique of colour wash on a chalky white ground was used briefly in the last part of the 5th century BC in a special category of vase, made to be deposited in graves; the best illustrate the freedom that artists had then mastered. In 1977, the unearthing of the tombs of Philip II and other members of the Macedonian royal family revealed wall-paintings of dazzling mastery that anticipate uncannily the achievements of Renaissance artists, in the sense of liberation from long traditions and conventions: such work clearly went on to inspire artists in the Hellenistic and Roman periods.

Architecture was firmly rooted in the forms of the Archaic period – superficially, there is no great difference between the Doric temple of Artemis at Corcyra, of the early 6th century BC, and the Parthenon, the greatest Doric building of the 5th century BC. Developments can be seen in the improvement in technique, particularly the use of marble, and the refinement of detail. Yet there is more than this. Though it is not easily noticed by the naked eye, the Parthenon represents the application to building design of a rigorously thought-out sequence of mathematical proportions, particularly in the ratio of 4:9, that is 2 squared to 3 squared. It is in mathematics that some of the greatest advances of the Classical period can be discerned. Despite having – or perhaps, by virtue of having – hopelessly cumbersome numerical systems, the 5th century BC was the time at which the Greek interest in mathematics became fully awakened, not surprisingly through geometry, ratio, and proportion rather than arithmetic. Sculptors such as Polyclitus saw the ideal of human beauty in the mathematical relationship between the different parts of the human body. The mathematicians of the Classical period constituted a discipline that has continued uninterruptedly, through the succeeding Hellenistic and Roman periods, inspiring the Arabic mathematicians of the Middle Ages, and on to the present day. Thus the work of the 4th-century mathematician Eudoxus of Cnidus was incorporated by the Hellenistic Euclid into his fundamental textbook, the *Elements*, which was still an essential schoolbook in the 20th century.

In addition to mathematics, and also building on the pioneering achievements of the Archaic period, the natural sciences flourished. Much, inevitably, was theoretical, but in what we would term physics for instance, Greek scientists evolved the atomic theory. It was still essentially the age of the universalist, but so much had been achieved that the greatest of them, Aristotle, gathered together in his Writings (which read more like lecture notes, carefully preserved for posterity, than published works) his systematical concepts of the whole range of scientific thought – and beyond. The philosophers – a term coined in the Classical period – also turned to the study of human behaviour, politics and the nature of political relationships, the concepts of law and order and justice, of religious and related matters, of poetry and the arts. The nature of the ideal state was investigated; in size and scope, not surprisingly, it resembled the Classical Greek city state, but the unsatisfactory nature of contemporary political forms meant that no existing city furnished an ideal model, although Aristotle studied the constitutions, presumably all different, of some 150 of them.

How much of practical value this study of political theory achieved is dubious, though Plato went to Syracuse to advise the autocratic ruler of that city, and Aristotle was chosen by Philip II to be tutor to his son Alexander the Great. The principal achievement of the philosophers based in Athens, including Aristotle, who was not a native Athenian, was the institution of their own philosophical schools (again, with Archaic-period antecedents). These were based on the exercise grounds, the gymnasia, of the Classical city, and they survived and even developed as centres of intellectual life through the succeeding Hellenistic and Roman periods. Although as centres of paganism they were suppressed by the Christian emperor Justinian, they provided a model for Alexandria, for the Arabic centres of the Middle Ages, and so again through post-medieval Renaissance Europe to the present day.

During the Classical period there was a great flourishing of literature. Earlier literature, since the time and works of Homer, comprised exclusively poetry. Now a significant prose literature began. The Writings of Herodotus in many ways typify the Classical achievement. First and foremost, he brought to Greece a great personal knowledge of the wider world within which the Greeks existed and operated. Born at Halicarnassus in Asia Minor, he was by birth a subject of the Persian king; his neighbours were the non-Greek Carians. He certainly visited Egypt and other parts of the Persian empire before arriving in Athens, at the period of its great rise to power and prosperity following the defeat of Xerxes' invasion. He knew the leading political families, who told him their family histories, which were so important a part of the city's development. He was inspired to record the history of the Persian Wars, as the first united achievement of the Greek peoples since the siege of Troy (which to him, of course, was equally historical). In a world where education included above all else a knowledge of the Homeric poems, he set out to produce his own epic of the Persian Wars – but written in prose, not verse. He included everything that seemed to him to have even the least bearing on the history of the war, and thus preserved for us a vast spectrum of contemporary knowledge. Above all, in doing this, he instigated the study of contemporary or near-contemporary events: as the "father of history" he certainly inspired his more methodical successor Thucydides, who wrote about the lesser war between Athens and Sparta, with a deeper insight into historical analysis that this tragic event required, and thereafter an endless sequence of historians, down to the present day. From this, too, prose became the natural medium of expression for the philosophers.

At the same time, drama was developed as a new form of poetic literature. Here, too, the roots lie in the Archaic period, in the choral odes sung and danced at religious festivals throughout the Greek world. Tragedy required the participation of individual actors, separated from the choruses. They played the roles of recognizable characters drawn from the almost limitless repertoire of traditional legend and myth. Significantly, actions based on contemporary events are almost unheard of; the main known – and surviving – example is Aeschylus' play the *Persians*, which again was based on the events of Xerxes' invasion. Comedy was more involved with contemporary affairs, particularly politics, and often portrayed real politicians or other public figures. It was all part of the ferment of contemporary intellectual life. The surviving examples of both tragedy and comedy come, almost inevitably, from 5th-century Athens. Drama went into a marked decline in the succeeding century, the only real survivor being the "new" non-political comedy of manners of the late 4th century BC. Until recent discoveries of these plays on papyri from Egypt, they survived only in Latin versions of the 3rd and 2nd centuries BC. From the Greek examples, later Latin plays, written as literary exercises rather than for production on the stage, in their turn inspired subjects for plays by Shakespeare.

It would be wrong to create the impression that Classical Greece was unified in its achievement. Some places – most obviously, Athens – predominate because their own position in the Classical world, their wealth, and their power were particularly inspiring. In these places the culture of the Classical period is very much a *Zeitgeist*, the spirit of the age. They might well stimulate achievement elsewhere. All the same, much of the Greek world was outside this achievement. Some cities, such as Sparta, quite deliberately turned their backs on it in a desperate attempt to preserve what were for them the more congenial virtues of the preceding Archaic period. Many places, poor and small and insignificant, remained outside through lack of opportunity or sheer ignorance. All the same, awareness of what was being achieved was widespread, and the excitement, if not the opportunity, was not restricted by political or geographical divisions. Aristotle, surely the greatest intellect of the Classical period, came from Stagira in northern Greece, a place that recent excavation has shown to be nothing more than a rather squalid village; to gain intellectual fulfilment he had to move away, not just to the wealth of Philip II's growing kingdom but to Athens, in political decline but still the epitome of Classical civilization

R.A. TOMLINSON

See also **Architecture; Comedy; Democracy; Historiography; Mathematics; Painting; Philosophy; Physics; Religion; Tragedy**

Further Reading

The list is immense. The following books give a good general overview, with full bibliographies of relevant material.

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CLEISTHENES *fl.*525–505 BC

Athenian political leader

The clan of the Alcmaeonidae, to which Cleisthenes belonged, had been prominent in the old "Eupatrid" pre-Solonian aristocracy of Athens. One of its members, Megacles, was chief archon around *c.*630 BC when another noble, Cylon, attempted to seize power and set himself up as "tyrant". Megacles rallied the people and blockaded him on the Acropolis. Cylon escaped, but his followers, who had taken refuge at the statue of Athena, were killed, despite a promise of safe conduct. As a result the whole clan was tried, put under a curse, and exiled.

Restored, it seems, at the time of Solon's reforms (594 BC), the Alcmaeonidae emerged in the mid-6th century as leaders of the coast faction, the "Men of the Shore" in Herodotus' account (1. 59) of the political struggles that led to Pisistratus' three attempts to establish a "tyranny"; Aristotle (*Athenian Constitution*, 13) identifies this faction as the supporters of "the middle form of constitution", such as Solon had tried to bring about, and views Pisistratus as "a man who seemed inclined to democracy". The Alcmaeonidae went into exile (Herodotus, 1. 64) after Pisistratus' successful third attempt with strong foreign backing.

Cleisthenes, who at this time was at least an adolescent, if not an adult, presumably went with them. But at some point, probably after Pisistratus' death in 528/27 BC, he returned to Athens, now ruled by Pisistratus' son Hippias, for he was almost certainly the Cleisthenes who appears in one fragment, discovered in the Athenian Agora, of a late 5th-century BC list of chief archons, as holding office in what its editors identify as 525/24 BC.

Later Cleisthenes was again in exile with many of his clan, who, after failing to spark a popular rising against Hippias by means of an armed incursion into Attica, withdrew to Delphi, where they obtained the contract for rebuilding the fire-damaged temple of Apollo. Their lavish performance of the task won them influence with the Delphic authorities, who were persuaded to advise the Spartans, whenever they came to consult the oracle, to liberate Athens from the tyrant. This advice was probably instrumental in winning support at Sparta for such men as king Cleomenes, who had other reasons for removing Hippias. In the event, after a failed seaborne invasion in 511 BC, the following year Cleomenes took a substantial army by land from the Peloponnese, won a battle, and forced Hippias into exile.

Cleisthenes' role in these events is unknown, but he is identified by Herodotus (5. 66) as one of the two most powerful men in Athens after Hippias' expulsion, his rival being Isagoras, described by Aristotle (*Athenian Constitution*, 20) as a friend of the tyrants. Isagoras gained the upper hand, being elected chief archon for 508/07 BC, whereupon, as Herodotus puts it, Cleisthenes "took the people into his party", words echoed by Aristotle, who adds: "by proposing to give political power to the masses". The clear inference to be drawn from their wording is that they believed that this action was born of political expediency, a belief that the previous history of the Alcmaeonidae, for all their support of the Solonian reforms, cannot be said to refute.

Cleisthenes' appeal to the people must have met with a response, for Isagoras at once sought help from Cleomenes, who had worked with him in 510 BC. The Spartan king's reply was to call on the Athenians to expel Cleisthenes and others of "the accursed" (Herodotus, 5. 70) – the descendants of the Alcmaeonidae who had been punished with a curse after the massacre of Cylon's supporters in the late 7th century BC – and then to travel to Athens with a small force. Before he arrived, Cleisthenes himself left Athens, a move that, whatever his motive, enabled the people to decide on their best policy without the pressure of the curse, but Cleomenes still set about expelling as many as 700 households of Cleisthenes' supporters. He also tried to replace the Solonian Council of 400 with a body of 300 partisans of Isagoras, and then seized the Acropolis. The people rose against him and after a two-day siege forced him to depart under truce, expelled Isagoras, and recalled Cleisthenes.

Cleisthenes now carried out his promise to give power to the people. His principal reform was to create a new tribal structure for the political and military organization of the Athenian people, replacing the four old Ionian tribes based on kinship with ten new tribes based on 139 small local units, the demes, grouped in such a way as to minimize the influence of the wealthy landed nobles by making each tribe consist of people drawn from all over Athens and Attica. He linked demes together, not necessarily with their immediate neighbours, to form thirty *trittyes*, ten in each of three regions, the city, the inland, and the coasts, and then took one *trittys* from each region to form each new tribe. He thus aimed to preserve the unity of the state against the sort of powerful regional factions whose rivalries had led to Pisistratus' tyranny and whose re-emergence Isagoras' success seemed to foreshadow.

Cleisthenes then used the new tribes to reshape Solon's Council of 400. Enlarged to 500, it was to consist of 50 men from each tribe selected by lot from nominees of the demes, the members to change annually and no one to serve more than twice in his lifetime. These arrangements ensured that it could not be controlled by minority pressure groups, while educating a good proportion of the citizens in public affairs, and so it enabled the sovereign Assembly open to all citizens, whose business it prepared and whose decisions it carried out, also to be truly democratic and effective. The two essential institutions of Athenian democracy were now in place and functioning properly. Cleisthenes' enactment of the only other measure credited to him, the introduction of ostracism (Aristotle, *The Athenian Constitution*, 22), has been needlessly doubted on the grounds that the procedure was not used until 488/87 BC.

His name is not linked with any event after his reforms of 508/07 BC and it is not known what part, if any, he had in the successful defence of the new democratic Athens against threats from Sparta, Thebes, and Chalcis (506–505 BC), or even when he died. However, both Herodotus (6. 131) and Aristotle (*Athenian Constitution*, 29) refer to him without qualification as the one who "established democracy"; Isocrates in his *Areopagiticus* (*c.*354 BC) sees the system he set up as greatly preferable to the radical democracy of his own day. Under it, certainly, the Athenians were very successful. In the modern democratic era, although due weight has been given to the influence of Solon as the "father of democracy", and although some scholars have detected signs of pro-Alcmaeonid gerrymandering in allocating *trittyes* to tribes, the essential role of Cleisthenes in the democracy's development to maturity has been freely recognized, not least in the celebrations that marked the 2,500th anniversary of his laws.

T.T.B. RYDER

See also **Democracy**

Biography

A member of the Alcmaeonid clan, Cleisthenes (date of birth unknown) was probably chief archon in 525/24 BC during the tyranny of Hippias. After the expulsion of Hippias by Cleomenes of Sparta in 510 BC, Cleisthenes emerged as a popular leader and in 508/07 BC carried out political reforms that set in motion the machinery that would bring about the establishment of Athenian democracy. Date of death unknown.

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CLEMENT OF ALEXANDRIA, ST *c.*AD 150–*c.*AD 215

Christian writer

It is to a large degree thanks to Clement that the cultural and philosophical traditions of Hellenism were deemed to be a legitimate component of Christian theology. In the religious and philosophical melting pot that was late-antique Alexandria, Clement fought a two-sided battle that was in many respects successful. Against the tendency to reject the Hellenic tradition outright evinced in Tatian, Tertullian, and Irenaeus, Clement defended the utility of Hellenic learning for the defence and deepening of the faith. On the other front, Clement attacked the complex and seductive speculations of the Gnostics, which had proved so attractive to many educated Christians.

The bulk of Clement's work forms a kind of trilogy. The *Protrepticus* or *Exhortation to the Greeks* is an attack on the absurdities of pagan religion and a call to accept the only true religion, that which has been sublimely revealed by Christ, the *Logos* of God. The *Paedagogue* or *Teacher* takes up the instruction of those who have accepted baptism. Its aim is to teach the perfect accomplishment of the virtues. The *Stromateis* or *Miscellanies* are, as the title suggests, a collection of diffuse materials; they deal, among other things, with the relation between the Christian faith and Hellenic philosophy, with marriage, and with the ideal of the true gnostic. In addition Clement composed a small work, *Quis Dives Salvitur? or Who is The Rich Man that is Saved*? This piece is a commentary on Mark 10: 17–31. Clement argues that the Christian is not required actually to sell all his goods, but rather to be free from attachment to them. Other works survive only as fragments.

Clement's teaching is centred on the *Logos*, the creator, instructor, and perfecter of humankind. The *Logos* has revealed God to the Jews in the Law of the Old Testament, to the Greeks in their philosophy, and finally and most perfectly in his own Incarnation. Philosophy is therefore a legitimate tool of Christian theology. The difference is one of degree, not of kind.

In opposition to the Gnostic tendency to divide Christians into more or less predetermined classes, Clement insists upon the sufficiency of faith and the equal grace conferred upon all at baptism. Also against the Gnostics, Clement affirms the integrity of the material order and the goodness of the body. Against the tendency found among Christians and Gnostics alike to denigrate marriage, Clement upheld its sanctity. He goes so far as to suggest that the married Christian is on a level above the celibate. The celibate has fewer distractions and encumbrances; his task is therefore easier.

Notwithstanding the equality of grace received at baptism, the Christian must strive for perfection. Through the exercise of his free will, he must struggle for the gift of *apatheia*, or freedom from passions. God is radically unknowable, but is made known to those who love him. Clement's apophaticism is more than mere agnosticism. The true gnostic is led by the *Logos* to the contemplation of God. By way of this anagogy, man is deified. Clement speaks of man's deification with almost unprecedented clarity.

Of Clement's immediate background we know frustratingly little. He is very vague about his own teachers, naming only one

of them, the Alexandrian lecturer Pantaeus. His work is suffused with Platonic philosophy and Stoic ethics, and marked by Aristotelian logic and vocabulary. His frequent allusions to Classical literature, no doubt intended to keep up the interest of his cultured audience, are drawn from both florilegia and direct acquaintance. He is patently indebted to the Jewish Platonist Philo of Alexandria, particularly in respect of the allegorical method of biblical exegesis, the incomprehensibility of God, and the ideal of *apatheia*. Clement's integration of the Hellenic tradition and Christianity is a more searching and critical development of that proposed by St Justin Martyr. Clement's *Exhortation* owes some elements to Tatian's *Exhortation*.

The influence of Clement has been profound. The fusion of Hellenic philosophy and moral teaching with Christianity proved to be a heady mixture. Origen, though a man of greatly different temper, continued the work of Clement, establishing Christian Platonisim as the hallmark of the school of Alexandria. The Cappadocian Fathers represent the greatest flowering of the tradition of Clement and Origen. Clement's influence is clearly perceptible in the works of Evagrius of Pontus and pseudo-Macarius, the two great fountainheads of monastic spirituality. Clement's conception of the angelic hierarchies may be regarded as an ancestor of that made famous by Dionysius the Areopagite. Clement is quoted with deep approval by St Maximos the Confessor. He continued to be an important authority for the Byzantines. While removed from the Roman martyrology in the late 16th century, he remains accounted a saint by the Orthodox Church.

MARCUS PLESTED

Biography

Born *c.*AD 150, probably at Athens, educated at Alexandria in the catechetical school of Pantaenus, whom he succeeded. Principal surviving works are: *Protrepticus* (*Exhortation to the Greeks*), *Paedagogue* (*Teacher*), and *Stromateis* (*Miscellanies*). He argued for the legitimate retention of Hellenic cultural and philosophical traditions in Christian theology. He left Alexandria in 202 before the persecutions of Septimius Severus and died between 211 and 216.

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CLEOMENES III 260–219 BC

King of Sparta

The lives of Cleomenes III (Agiad, reigned *c.*235–222 BC) and his predecessor Agis IV (Eurypontid, reigned *c.*235–222 BC) are the subject of numerous studies and novels, ancient as well as modern. After Lycurgus the lawgiver, Leonidas, and Agesilaus II, they are the most famous exemplars of Spartan culture. Their achievements and significance, on the other hand, are the stuff of history.

Cleomenes probably acceded to the Spartan throne in 235 BC. He could not have chosen a more pregnant moment. For it was then that Aratus achieved the decisive gain for the Achaean League that imperiled Sparta's future, in a way that Macedonian suzerainty of Greece had not. Megalopolis, led by its ex-tyrant Lydiadas, threw in its lot with Achaea, whose foreign policy thereby took on a decidedly anti-Spartan flavour. Like all his royal predecessors since Agesilaus II, only more so, Cleomenes had to keep watch on Megalopolis, no matter how preoccupied he might be otherwise with internal upheaval or other external threats from inside or outside the Peloponnese. Unlike all his predecessors, Cleomenes not only recovered from Megalopolis the disputed borderland of Belminatis but actually destroyed the urban centre of the Great City itself. For this, among many other things, he earned the enduring hatred of Polybius, even though the historian was born in a resurgent Megalopolis, 20 years after the king's ignominious death in exile.

The only hope for Sparta to regain its important standing in the Peloponnese was to mobilize all its inner strength and deal with the urgent social problems that beset it. Cleomenes seems to have understood this at a very early stage, and, instead of following the example of his father Leonidas and his father's cousin Areus, he decided to emulate Agis. It came as a surprise to his contemporaries to see the principles of Agis adopted by the son of his most bitter enemy.

Cleomenes was neither a romantic dreamer nor a dogmatic rationalist, but a practical politician. He was determined to solve the urgent social problems of Sparta in order to increase its political and military power, and at the same time to strengthen his own position. He knew very well that he could not carry out the necessary reforms by persuasion alone, and therefore tried to gain popularity and fame through military feats.

This does not mean, of course, that these events cannot or should not be viewed within their wider context, particularly the continuing balance of power between the three great dynasts of Macedon, Egypt, and the Near East. Indeed, it was this stalemate and, particularly, the enfeebled Macedonian suzerainty over Greece as represented successively by Antigonus II Gonatas (*c.*277–239 BC) and Demetrius II (*c.*239–229 BC) that allowed the Aetolian League, the Achaean League, and then Sparta under Cleomenes the space for internal consolidation or transformation and external expansion. In fact, it was the resurgence of Macedon under Antigonus III Doson in the 220s BC, ironically precipitated by Cleomenes, that fully exposed the limitations of the single Greek city state as a power unit and put paid to Sparta's illusory independence and ephemeral social renewal.

Cleomenes had planned his coup well in advance with the collaboration of a small group of sympathizers, including his stepfather Megistonous, a rich landowner. Returning to Sparta one evening (probably in the autumn of 227 BC) he fell upon the ephors at supper, killing four of them and ten of their chief supporters, and seized power. Eighty opponents were proscribed. Cleomenes then proceeded to carry out the same revolutionary programme that had led to the downfall of Agis. All landed property was put into a common pool, debts were cancelled, and the land was divided into 4,000 Spartan lots. He raised the citizen body to perhaps 5,000 from the metics and

perioikoi (dwellers round about), but in the reassignment of the land, lots were reserved for proscribed exiles, whose eventual reconciliation and return was evidently envisaged – or at least that was the impression that Cleomenes sought to convey. Equally important for his aims, the traditional Spartan *agoge* (upbringing), with military training, age groups for boys, and common messes for adults, was reintroduced. But Cleomenes' measures were not simply backward-looking. Now at last, a century after Alexander and after several Spartan defeats, he introduced the Macedonian type of phalanx and spent the winter drilling his troops in the use of the long pike, the *sarissa*. Constitutionally, he weakened the Gerousia by attenuating or removing some of its powers, and by making election to it annual rather than for life (a major source of its enormous prestige), and abolished the ephorate, which he condemned as an excrescence on the "Lycurgan constitution", a move that led his opponents to brand him as a tyrant. According to Pausanias, he established a new board of magistrates, the *patronomoi* (the title means "Guardians of Ancestral Law and Order").

The Cleomenean revolution struck a chord in the cities of Sparta's Achaean opponents, where the poor sub-hoplite citizenry yearned for debt cancellation and land redistribution on the Spartan model, which they obviously regarded as exportable. This, however, was a grave misapprehension, because Sparta's unique sociopolitical conditions could not simply be reproduced elsewhere, and because Cleomenes had no intention of exporting social or economic revolution of any kind. Ideological preference may have had something to do with this refusal, but a more powerful factor was the pragmatic consideration that Spartan hegemony over an association of cities dominated by mass movements of a genuinely democratic character was likely to be radically unstable and bound to attract the unwelcome attention of Macedon, which had made its views on popular social movements unequivocally clear from the very outset of its hegemony of Greece.

The Cleomenic War, the war against Cleomenes as seen from the Achaean standpoint, lasted from 229/28 to 222 BC. At the beginning Cleomenes was very successful, and almost provoked the collapse of the Achean League. By the beginning of 224 BC his military-political drive had not only brought Argos and most of Arcadia within the Spartan camp but had carried his victorious arms into and beyond the original Achaean heartland to the very gates of the Peloponnese at Corinth. The victory in the field at Hecatombeum in western Achaea in 226 BC was matched in 225 BC by the diplomatic triumph of the adhesion of Argos. Even Aratus' own Sicyon trembled before the blast and had its loyalties severely strained. A few months into 224 BC, however, the wily and perplexing Aratus, former liberator of the Acrocorinth and unifier of much of the Peloponnese on an ostensibly anti-Macedonian alliance, deployed his recently acquired authority as general plenipotentiary (*strategos autokrator*) to lead the Achaean League into an alliance with none other than the old enemy Macedon.

A century before, the decisive battle between a still independent Greece and Macedon at Chaeronea had preceded the formation in 338 BC of Philip's Hellenic League, usually known as the League of Corinth. In the 220s BC the decisive encounter between Macedon and a still independent Sparta succeeded the formation of a new Hellenic League conceived on significantly different lines. Not only was Doson's league directed specifically against Sparta and the generated social revolution it was supposed to stand for, but this was an alliance of federations, not single poleis.

The battle that was to settle the war was fought near Sellasia on the northern borders of Laconia. But Cleomenes' cause was already lost, and Ptolemy IV Philopator acknowledged that he had become a poor investment by cutting off his subsidy just days in advance of the fighting. But so far as can be ascertained, the decisive factor in Macedon's victory was superiority in numbers. Cleomenes' losses were heavy; but he himself escaped with a handful of men to Sparta, and thence to Gytheum, where they embarked for Egypt, to join his mother as a refugee in Ptolemy's Alexandria. Antigonus proceeded to take Sparta and achieved what Philip II had scorned to attempt and Pyrrhus among others had failed to execute, the first capture of the city.

Cleomenes' political reforms were now cancelled and the ephorate was restored; the kingship was in effect left vacant. The fate of his social and economic measures is less certain. The cancellation of debts clearly could not be reversed. It seems on the whole likely that in this field Cleomenes' measures were not wholly abrogated but that some sort of compromise was reached.

A vaguely Cleomenean political tendency at Sparta survived the battle of Sellasia. But it was a lost affair, especially after the pathetic deaths of Cleomenes and his handful of supporters at Alexandria in spring 219 BC in a futile rising against the new Ptolemy IV Philopator. The legend of Cleomenes, however, was in safe hands, and his ideas influenced generations to come.

DIMITRIS A. KALOGERAS

Biography

Born 260 BC. Spartan king (235–222 BC) and political reformer. Cleomenes tried to solve the social problems of Sparta in order to increase its political and military power and at the same time strengthen his own position. He reinstalled the Lycurgan political system, cancelled debts, and redistributed land in equal portions. His reforms alarmed neighbouring states, especially Macedon. He was defeated in 222 BC at Sellasia and his reforms cancelled. He went into exile and died in Alexandria in 219 BC.

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CLEOPATRA 69–30 BC

Queen of Egypt

Cleopatra was born in 69 BC to Ptolemy XII Auletes, king of Ptolemaic Egypt, and (almost certainly) his sister-wife Cleopatra V. The third of their six children, Cleopatra grew up against the backdrop of her father's turbulent reign, in the course of which he was deposed and fled Egypt for some years. During this period Cleopatra's two elder sisters ruled as pharaohs, although one soon died and the other was killed after Ptolemy XII was restored with Roman support. Nothing is known about Cleopatra's early life, but when her father died in 51 BC, Cleopatra was his eldest surviving child and acceded to the throne as Cleopatra VII Philopator, ruling jointly with her younger brother Ptolemy XIII, whom she married in accordance with Ptolemaic custom.

On account of the machinations of ambitious ministers and the agitation of the Alexandrian populace, the Egyptian throne was still far from secure. A war was engineered between brother and sister, leading to Cleopatra's expulsion from Alexandria. During the course of the contemporaneous Roman civil war between the triumvirs Pompey and Julius Caesar, Pompey fled to Egypt after his defeat at the battle of Pharsalus, and was pursued by Caesar. Pompey was treacherously murdered by the supporters of Ptolemy XIII. When Caesar arrived with his troops he decided to support the claims of Cleopatra and fought on her behalf the Alexandrian War against her brother. Caesar was by now married to his third Roman wife and was in his early 50s; Cleopatra was a young woman of about 20. Tradition maintains that she came to meet him in secret wrapped in a linen sack, and that Caesar, susceptible to feminine wiles, was immediately captivated by her.

Roman forces won the war, in the course of which Ptolemy XIII was killed. Caesar restored Cleopatra to the Egyptian throne and had her married to her other younger brother Ptolemy XIV, ostensibly to rule jointly with him. It is after this that Caesar and Cleopatra took their legendary Nile cruise to explore the country of Upper Egypt, an episode which has been much romanticized in recent times. No details about this trip survive, but when Caesar left Egypt sometime in 47 BC, Cleopatra was pregnant, allegedly by him. Later that year she gave birth to a son, known as Caesarion ("Little Caesar"). In 46 BC, for reasons which remain obscure, Cleopatra and her son followed Caesar to Rome, where they remained until his assassination on the Ides of March in 44 BC.

After the murder of Cleopatra's great champion and protector, the queen returned to Alexandria. She engineered the murder of her brother Ptolemy XIV and installed her young son on the throne with her as Ptolemy XV. The political consequences of Caesar's murder were great. One of his major supporters was Mark Antony, who allied himself with Octavian, Caesar's great-nephew and posthumously adopted son, against Caesar's assassins. After their defeat of the assassins, Antony and Octavian divided the territory of Rome between them, but gradually fell out with each other to the extent that civil war again ensued. Antony, whose power base was in the east, summoned Cleopatra to meet him in Cilicia in 41 BC. Ancient sources describe Cleopatra arriving in her spectacular state barge at Tarsus adorned as Aphrodite, having cunningly calculated the effect of her appearance and such a dramatic arrival. Although Antony was by now a mature man in his 40s married to his third Roman wife, he was instantly smitten by the queen. She invited him to a sumptuous feast aboard her barge, and was lavishly entertained by him the following day.

Antony and Cleopatra spent the following winter together at Alexandria, enjoying a life of luxury, the extravagant Ptolemaic court life clearly appealing to the self-indulgent Roman. Cleopatra bore him twins (a boy and a girl) in 40 BC. Antony left Egypt to deal with events in Rome, taking as his fourth wife Octavian's half-sister Octavia in an attempt to improve relations with his rival. There is no evidence that he saw Cleopatra again until 37 BC, when he met her in Syria. It appears that their relationship was further consolidated, though it stopped short of marriage since Antony was still legally married to Octavia. He acknowledged his paternity of their twins, and Cleopatra bore him another son the following year.

Relations between Antony and Octavian worsened, no doubt hastened by this insult to Octavia. Antony campaigned in Parthia and Armenia, with varying results, but the final break with Octavian came after a ceremony in Alexandria in 34 BC, known as the Donations of Alexandria. At a grand spectacle Cleopatra was confirmed as queen of Egypt and the surrounding lands in conjunction with her son Caesarion, and the rest of the eastern territories were divided between the two sons of Antony and Cleopatra. By this act Antony and Cleopatra claimed dynastic succession for their children even as he granted Roman territories to the half-Egyptian princes. War with Octavian was now inevitable, and large forces were mustered.

The combined forces of Antony and Cleopatra were defeated by Octavian in the naval Battle of Actium (off the west coast of Greece) in 31 BC. The tactics of the battle have occasioned great debate, but Cleopatra's ships, lined up behind those of Antony, fled the scene through a gap in the battle lines and headed for Egypt. In despair, Antony followed her, his ships were captured, and his land forces gradually defected to Octavian. The campaign was lost. It only remained for Octavian to capture his two foes.

Antony and Cleopatra slowly returned to Egypt, and resumed their relationship. They spent the winter of 31 BC in Alexandria in a life of profligate luxury, reminiscent of the early days of their courtship. They made plans for further warfare even as Octavian approached Egypt. Various embassies were sent to Octavian. Some sources attest that Octavian secretly told Cleopatra that he would spare her if she betrayed Antony; others that Octavian pretended to be in love with Cleopatra so that she would not kill herself and burn the colossal treasure which she had collected in her unfinished tomb. In any event, it appears that Cleopatra was terrified of capture and being forced to march as a captive in Octavian's Roman triumph, which the victor clearly intended.

Egypt was attacked in 30 BC, and Antony was ultimately unable to stave off defeat when many of his land and naval forces deserted to Octavian. At the news of the final defeat, Cleopatra locked herself and her servants into her tomb and apparently sent out a message to Antony that she was dead. Antony killed himself with his sword, and some days later, despite Octavian's efforts to keep her alive, Cleopatra was found dead in her tomb, allegedly killed by the bite of an asp although rumours of poison were known.

Cleopatra's death ended the rule of the Greek Ptolemaic dynasty of kings in Egypt, and the country became a province of Rome. It was her fate, for good or ill, to come into contact with two of the most powerful Romans of their day, and her love affairs with them have ensured her undying fame. In hostile Roman sources Cleopatra was depicted as an eastern witch who had seduced two noble Romans, yet she was a Greek and only the first of her dynasty to speak Egyptian. Her political cunning and capacity for survival, whether as victim or manipulator, meant that Egypt remained Greek and independent from Roman rule for longer than the other Hellenistic empires.

E.E. RICE

See also **Ptolemies**

Biography

Born in 69 BC the daughter of Ptolemy XII Auletes, Cleopatra became queen on the death of her father in 51 BC, ruling jointly with her younger brother Ptolemy XIII. In a war between the brother and sister Julius Caesar supported Cleopatra and restored her to her throne. In 47 BC she bore his child and lived in Rome 46–44 BC. After Caesar's murder she returned to Egypt and in 41 BC met Mark Antony in Cilicia. Their forces were defeated at Actium in 31 BC by Octavian. Antony and Cleopatra committed suicide in Alexandria in 30 BC.

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CLIMATE

Greece has a Mediterranean-type climate similar to that of Spain or California, with harsh dry summers (the dead season) and warm wet winters (the growing season in the lowlands).

The year begins in September, when clouds start to gather and the sun no longer burns so relentlessly. The first rains, coming one to ten weeks later, awaken plant growth for the winter. Frost and snow are rare but significant: olives cannot be grown in hollows where cold air gathers. Soil moisture typically reaches a maximum in spring; then the rains tail off, the heat of the sun rises, and evaporation increases. Many plants settle down to their summer dormancy, but some – notably the vine – are less well adapted to the climate and remain active through the dry season, their deep roots extracting water from the bedrock.

Greece is the land of lazy days in the crushing sun of a summer beach, and active days in the genial warmth of a southern winter; but also of people dropping dead from heat in the streets of Athens, or drowning in a flash flood in an arid Cretan gorge; of distant mountains glittering with snow; of the clammy mists from which the volcano island Santorini draws its moisture; of fire-storms jumping gorges, blasted by the October sirocco; of mules struggling through the snow in the high passes of Crete in July. Deluges are rare but very significant: once in a lifetime half a year's rain falls within a day or two and transforms a landscape.

Greece in general has a wet west side and a dry east side. The areas frequented by tourists are mostly dry, especially the islands. Athens, in the east, is one of the driest cities in Europe; Olympia, Patras, and Corfu, in the west, are relatively wet. High mountains distort the pattern; each one has a rain-excess on its northwest side, where the rain-bearing winds strike it, and a rain-shadow on the southeast. The southeast corner of Crete has less than 300 mm of annual rainfall; the high mountains probably get over 2000 mm, most of it as snow. One can have the illusion of going from Wales to Morocco in an afternoon's walk.

At high altitudes plant growth is limited by winter cold as well as summer drought. In the Pindus the growing season may be as short as two months: cereals and vines can be grown there but not olives. Modern Greeks cannot bear the cold, and flee from it if they possibly can. The highest all-year settlement is at 900 m, less than half as high as in the Alps, and a little higher than in Norway; anything higher calls for transhumance. Settlement has been much higher in prehistory.

Dust is a significant factor. It is picked up by storms in the Algerian Sahara and is transported in the upper atmosphere, to fall as a "red rain" of mud, especially in Crete. Over the centuries this has been an appreciable addition to the soils of the island, and may contribute to Crete's unexpected fertility.

Has the climate always been so? Records of unusual weather are fairly copious from islands in later phases of the Little Ice Age (1590s and 1690s AD). These were decades of extreme weather – cold, heat, drought, deluges – greater than anything that seems to occur now. Crete then had many more permanent rivers than today.

Climatology was already a discipline in ancient Greece. Theophrastus' best surviving work was in this field. Unfortunately the interest of ancient philosophers in theories rather

than data means that they have little to tell us. The climate of ancient Greece was not grossly different from what it is now, but without instrumental measurements it is impossible to verify whether the climate – as opposed to unusual weather – was quite the same. If the ancient Greeks really went naked as on vase-paintings, they should have shivered in the chill damp of spring and been tortured by sunburn. (Modern Greeks are fully clad, and enjoy shade and the summer night.) It is an open question whether the clear atmosphere attributed by modern writers to ancient Greece, unlike the hazy, often-murky atmosphere usual today, is merely a proverbial platitude, or whether there has really been a change.

It is often conjectured that some change or other in early human affairs, for example the decline of the Mycenaeans, was due to a change of climate, such as drought. These claims lack independent evidence. There is, however, some evidence that winter snow was then it is now, and vegetation zones possibly lowers. Theophrastus makes the definite (though secondhand) statement that settlement and cultivation reached higher into the mountains of Crete in the past than in his time.

The present Mediterranean climate, however, is not very much older than Greek history. During the ice ages, up to 14,000 years ago, Greece was drier and colder than it is now. There was then a period of wetter, less strongly seasonal climate than today, when northern trees such as lime and alder were common down to the south of Greece and even in Crete. The change to something like the present climate began in the 5th millennium BC and was completed in the Bronze Age. Agriculture, coming after the change, is reasonably well adapted to a summer-dry climate (except in the case of the vine), whereas wild vegetation has not had time to adapt and copes as best it may. Not many Greek trees lose their leaves in summer as one might expect.

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COINAGE

Ancient Greek coinage developed in Asia Minor, probably influenced by the circulation of Lydian coinage in the 7th century BC. The production of Greek coinage grew as the polis flourished and spread throughout the Mediterranean during the height of the colonization phase between *c.*700 and *c.*500 BC. As a result, coinage in antiquity was an essentially Greek phenomenon and became a medium of exchange, the legacy of which remains with us today.

Money had existed long before the introduction of coinage. But it is less clear in the Greek world, at least, what exactly constituted money. We know that bars of precious metal were used as currency in the 8th century BC. Smaller payments, which required smaller denominations of coinage than were offered by early silver coinage, were probably served by other forms of money. Arrowheads, for instance, were used from the mid-6th century BC in the Black Sea area.

The earliest known Greek coins belong to the 6th century BC, but our knowledge of them is limited by the availability of good, datable archaeological contexts. The earliest archaeological evidence for the existence of coins dates from the middle of that century at the temple of Artemis in Ephesus. The coins of the Lydian king Alyattes, of a gold and silver alloy called electrum, were marked and punched with designs. Most Greek coinage was to be made of silver. Electrum was retained by a few cities (e.g. Cyzicus, Mytilene, and Phocaea) and then only until the 4th century BC.

It is clear that by *c.*500 BC silver coinage had been adopted by Greek cities throughout the Mediterranean – in Greece, Italy, Sicily, and the Hellenized parts of the Achaemenid empire, primarily western Asia Minor. It was not until the conquests of Alexander the Great in the third quarter of the 4th century BC that we sec the further expansion of Greek coinage into Babylonia, Bactria, and eventually India (Cribb 1983). Rome also began to imitate Greek coinage at the end of the 4th century BC (Howgego 1995, p.10).

The introduction of coinage has yet to be explained conclusively. Some have suggested that coinage was required to pay mercenary soldiers employed in campaigns, others that coins were used to facilitate large payments by and to states (Cook 1958; Kraay and Jenkins 1976, pp.317–28). Such speculation was limited until recently by the absence of small-denomination coins, but new examination has revealed in some quantity evidence for fractional coinage at least for the late 6th and 5th centuries BC. Small denominations have appeared so far only for silver coins: these small issues discovered would still retain some value, for example the smallest electrum coin represented a day's wages (Kraay, 1964). It is only with the introduction of base metal coinage, such as bronze, apparent in Greece from around the mid-5th century BC, that one can start to think of a more diverse role for coinage.

The development and spread of Greek coinage are inextricably linked with the development of the polis and the increase in the political and economic forces of Greek-speaking communities in and around the Mediterranean. The payments made by these city states were clearly facilitated by the development of coinage. Civic coinage was validated by markings that confirmed the value and legitimacy of the state's coinage; the Greek word for coin – *nomisma* – was linked to the legitimizing authority through the laws – *nomoi* – that regulated production. However not all Greek coinage was produced by states; often individuals issued coins, acting as or representing "states". The number of individuals issuing coins exploded at the end of the 4th century BC. Ptolemy I established a precedent for the other Hellenistic kings by having his portrait put on the obverse of Egyptian coinage around 305–304 BC.

Designs on Greek coinage were synonymous with the issuing city or authority. Towards the end of the 6th century BC Athens produced coins with an owl depicted on the reverse. The bird was associated with their tutelary divinity Athena – she appeared on the obverse – and the coins soon became known as "owls". Other states had their civic designs struck on the obverse:

Aegina had a tortoise, Corinth a colt, later in the 4th century BC the monarchic leaders were to introduce their own image on to the obverse face of their coinage. Coinage from the end of the 4th century BC becomes much more closely associated with individuals, typically the Hellenistic dynasts. In the later Hellenistic period the names of eponymous officials stamped on coins allows greater precision in dating.

Coinage was one way for a city or a ruler to extend his identity through the coin types. The circulation of coinage provided a useful means of conveying ideas and meaning. Coins were therefore an important means of spreading propaganda and political messages. Around 405 BC the cities of Rhodes, Cnidus, Iasos, Samos, Ephesus, Cyzicus, and Byzantium issued coins with the same obverse type of Heracles strangling a serpent, while retaining their own civic design on the reverse. By sharing the same coin type, these cities were able to display their support for Sparta. Under the leadership of Lysimachus, of Heraclid descent, they had defeated Athens, represented by a snake symbolizing Cecrops, the founder of Athens (Howgego 1995, p.63; Karwiese 1980).

Greek coinage circulated over a wide geographic area. The most popular coins in the Classical period were the Athenian silver ''owls''. Most coins were made from precious metals and their value equated loosely to the content of metal in the coin. Not all Greek cities observed the same weight standards, however; thus an Athenian, Corinthian, and Aeginetan drachma were all of different weights. The Athenian silver coinage was made from metal of a higher silver content than any other contemporary Greek coin. This, and the political might of Athens that the city enjoyed thanks to its 5th-century BC empire, ensured that its coinage was established as one of the most important issues in the Mediterranean. The Athenian weight standard eventually became the norm for many of the Hellenistic kingdoms from the end of the 4th century BC. The use of the Athenian system for Alexander issues preserved this weight standard in some areas until the 1st century BC. Posthumous Alexander issues remained popular for much of the Hellenistic period.

Reducing the weight standard was one form of monetary manipulation. Debasing coinage is known; Athens introduced a ''copper'' currency around 406 BC (Howgego 1995, p.111). A more familiar ploy was to reduce the precious-metal content in the coin. Ptolemy I introduced major reforms to Egyptian coinage between *c.*310 and *c.*290 BC, abandoning the Athenian weight standard and eventually lowering the weight of his silver tetradrachm by nearly 20 per cent. Egypt operated a closed economy, and all coinage had to be exchanged for local issues, a development paralleled within the Attalid kingdom at the start of the 2nd century BC.

Many Greek coin producers lacked local silver resources. Rich local deposits of precious metals were available in some areas. The Athenians in the Laurium hills of southwest Attica, those on the island of Siphnos until the flooding of the mines in the 5th century BC, and the people of Thrace, Macedon, and Thasos all had access to supplies of precious metals. At Pangaeum, in Thrace, east of Amphipolis, Philip II of Macedon increased the extraction of the silver and gold from the mines after 356 BC. His son Alexander the Great used the metal to produce coins that were to circulate over vast distances and dominate the Hellenistic world. But good local metal supplies were not always necessary for the widespread circulation of coin: the distribution of Corinthian and Aeginetan issues in the Archaic and Classical era indicates that commercial activity was the main reason for the spread of their coinage.

Coin production took place in mints. Skilled craftsmen produced the designs for the coins on metal dies, which were used to punch the desired image on to the two sides of the coin or flan. It was normal for one of the two dies to BC gripped in an anvil. The impression made on the coin by this static die is known as the obverse; the other side of the coin is known as the reverse and the image here was created by striking the die on the upper side of the flan. The dies used to strike coins would eventually deteriorate and sometimes break; the lower the would almost always have the longer life expectancy. A number of ''new'' coins were produced by striking new images on to existing coins. Such coins are known as ''overstrikes''.

Mints could also copy the designs of other coins. A number of cities in Sicily and south Italy were particularly famed for the quality of their coins and the types used were imitated throughout the Mediterranean. The head of Arethusa, which appeared originally on a Syracusan issue created by the famous engraver Cimon, was clearly imitated in the shape of the nymph who appeared independently on 4th-century BC coins at Larissa in Thessaly and at Tarsus in Cilicia. A number of coin producers imitated the designs and types of other cities: the Athenian silver tetradrachm was copied in Babylon, Phoenicia, and Egypt during the Classical period.

Coin distribution evolved with changing political and economic circumstances. So the rise of the Hellenistic kingdoms from the late 4th century BC marked a significant shift. Two levels of coin circulation can be observed. Coins issued by the monarchs enjoyed a far wider international acceptability than those of many of the smaller Greek cities. The exception in the Hellenistic period was probably Athens which revitalized its coinage in the 2nd century BC with the production of the so-called New Style Athenian coinage. Like Rhodes, Athens continued to issue a silver coin down to the 1st century BC.

From the 4th century BC more local bronze coins were issued in Greece, and these enjoyed considerable regional success, rarely being found outside their immediate centres of production. The bronze issues played a major role in the local economy and coins were minted for specific religious festivals, such as the Eleusinia in Attica. Bronze issues increased and were widely employed by Greek cities as Rome dominated Greek politics from the early 2nd century BC.

The federal Greek states became important producers of coinage in the Hellenistic period; in Asia Minor Greek cities continued to mint coins following the treaty of Apamea. By the end of the 1st century BC many Greek cities were no longer issuing their own distinct coinage. By this time, and throughout the 1st-3rd centuries AD, local Greek coins had taken on the appearance of Roman coins and were restricted to being struck in bronze. Under the Roman empire more Greek-speaking cities in Asia Minor were issuing coins than at any other time in antiquity. In the 3rd century AD the local production and circulation of provincial bronze coins issued by Greek cities reflects considerable economic developments within the Roman empire.

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COLONIZATION

It should be remarked at the outset that the term "colonization" to describe Greek expansion throughout the Mediterranean and Pontic areas is a coinage of modern scholarship. It is employed by historians to indicate the process whereby, from the 8th century BC through to the Hellenistic era, Greek cities took collective and conscious decisions to plant sections of their population on foreign soil under the leadership of an *oikistes* (founder) who was responsible for the distribution of land plots to his fellow colonists and the transfer of metropolitan cults to the new civic foundation which was generally independent of its metropolis (though Corinth seems to have continued to exercise some authority over its colonies). There are, however, three difficulties with this conventional definition.

First, while in modern historiography the colonizing process is distinguished sharply in both chronological and definitional terms from the migratory traditions regarding earlier movements of peoples such as the Dorians, Ionians, or Aeolians, ancient authors made no such distinction. Thucydides (1. 12. 4), for example, uses the same terminology to describe both the Athenian colonization of Ionia (the "Ionian migration") and the 8th-century BC Peloponnesian colonization of Italy and Sicily.

Secondly, it is not at all certain that the early colonial ventures of the 8th century BC were as organized and public in nature as the prevailing orthodoxy upholds. A case in point is the late 8th-century colonization of south Italy which the sources attribute to cities in Peloponnesian Achaea despite the fact that there is neither literary nor archaeological evidence for Achaean cities much before the 5th century BC. The fact is that the "mechanics" of early colonization are often and all too uncritically retrojected from foundation decrees of later periods, particularly those concerning the foundation of Naupactus (first quarter of the 5th century BC:), Brea (third quarter of the 5th century BC), Black Corcyra (4th century BC), and Cyrene, where it is impossible to gauge the extent to which a 4th-century decree replicates – as it claims – an original foundation decree of the later 7th century BC (though the weight of scholarly opinion inclines towards scepticism). Similarly, literary accounts for colonial foundations rarely predate the 5th century BC: thus, the developed tradition concerning the founding of Cyrene (which is frequently – though not unproblematically – regarded as a "model" for colonial foundations in general) is not attested before Pindar and Herodotus (see further below). A related point concerns the chronology of foundations. Thucydides (6.3–5) gives dates for the earliest colonies of Sicily while a more complete list is presented by Eusebius of Caesarea (late 3rd century AD). In neither case is the source of their information certain nor how they reckoned their dates. Archaeological investigation can certainly assist in answering this question, though the commencement of colonial activity – as opposed to less formal transactions of trade or exchange – is not always immediately apparent in the material record and in any case our ceramic chronologies are based in part (and more than is often admitted) on the Thucydidean and Eusebian dates. In general, the probability is that the origins of the earliest colonies were more haphazard, mixed, and gradual than is often stated.

Thirdly, while it would be unsound to regard Mycenaean material objects found in south Italy, Sicily, and the Aeolian islands as reflections of an early Mycenaean colonization of these areas (Mycenaean material is also found well inland in Anatolia), it does now appear that colonial activity may in some instances predate the 8th century. Thucydides (4. 123. 1) regards the city of Mende in Chalcidice as a colony (*apoikia*) of Eretria and it has often been assumed that Mende along with Torone (also in Chalcidice) were Euboean foundations of the Archaic period, but recent excavations at both sites have recovered Euboean and Euboeanizing material that dates back as far as the 10th or even 11th century BC. It is possible that this colonial activity represents a "rehearsal" for the more numerous and distant colonies planted in the west in the 8th century.

Indeed, the Euboeans of Eretria and Chalcis appear to have been prominent participants within the early colonization of the west. Both are said to have founded Pithecusae on the island of Ischia in the Gulf of Naples (Strabo, 5. 4. 9) with the Chalcidian element transferring to Cumae on the mainland opposite (Livy, 8. 22. 5–6): archaeological evidence suggests a date of about 775 BC for Pithecusae and 725–700 BC for Cumae. According to Thucydides (6. 3. 1) the first Sicilian colony, Naxos, was founded by Chalcidians under the leadership of Theocles in 734 BC, with Leontini and Catana following in 729 BC, while a Euboean presence is attested before the end of the 8th century at Zancle and Rhegium on either side of the Straits of Messina. Corinthians under the Bacchiad Archias are said to have founded Syracuse in 733 BC (Thucydides, 6. 3. 2)– a city which was to participate in the "secondary" colonization of Acrae and Casmenae in the mid-7th century and Camarina at the beginning of the 6th century BC. Megara Hyblaea was supposedly founded in 728 BC by Megarians who had failed to settle Leontini (Thucydides, 6. 4. 1) and established its own

colony at Selinus a century later. Rhodes and Crete are said to have founded Gela in 688 BC (Thucydides, 6. 4. 3), followed in 580 BC by Gela's foundation of Acragas (Strabo, 6. 2. 5). Finally, Achaeans are credited with the foundation of several colonies in south Italy – including Sybaris and Croton towards the end of the 8th century, Metapontum and Caulonia in the second half of the 7th century, and Posidonia in the early 6th century – while Tarentum was founded by Spartan dissidents in the last decade of the 8th century and Epizephyrean Locri by Locrians in the early decades of the 7th century BC.

The second major area of early colonial activity was in the region of the Hellespont, Propontis, and Black Sea. Milesian foundation is attributed to Abydus on the Hellespont (670 BC?), Cyzicus in the Propontis (756 BC?), and Sinope (631 BC?) together with a host of other colonies in the Black Sea; Miletus is also said to have participated with Paros and Erythrae in founding Parion in 709 BC. The Megarians planted the colonies of Astacus, Chalcedon, Selymbria, and Byzantium at the eastern end of the Propontis in the course of the 7th century and collaborated with the Boeotians in founding Heraclea Pontica *c.*560 BC. Towards the end of the 7th century, the Athenians founded Sigeum on the Hellespont and Samos established Perinthus on the northern shore of the Propontis, while the Tean colony of Phanagoria on the northern shores of the Black Sea probably dates to the mid-6th century BC.

In the far west, settlers and refugees from Phocaea are credited with the foundation *c.*600 BC of Massilia in southern France and Emporion in Spain. In the northern Aegean, the Chalcidice peninsula was settled by Eretrians, Chalcidians, Achaeans, Corinthians, and Andrians while Paros led a Panhellenic venture to colonize Thasos in the mid-7th century and Samians are said to have settled Samothrace in the second half of the 6th century BC. Finally, Libyan Cyrene is said to have been colonized by Thera *c.*630 BC and archaeological evidence suggests that other settlements were established in Libya at Tocra, Euhesperides, and Barca from the last third of the 7th century to the middle of the 6th century BC.

The motives for early colonization are the subject of scholarly controversy and it is probably unwise to insist upon unicausal factors. Some colonies may have been established for the purpose of exploiting trading opportunities, though most were situated on headlands and estuaries in possession of fertile plains, so it may BC that the increased sedentary conditions of mainland Greece in the 8th century (together with consequent demographic increase) led to a shortage of agricultural land at home – certainly the Theran version of the foundation of Cyrene claims that a seven-year drought prompted the consultation of the Delphic oracle which instructed the Therans to colonize Libya (Herodotus, 4. 151). Alternatively, since the early colonial ventures appear to coincide with the crystallization of the polis or "city state", it may be that the inclusionary/exclusionary process through which the community of citizens emerged inevitably resulted in social disaffection on the part of those who found themselves excluded or dissatisfied: in the Cyrenean account concerning the origins of Cyrene, the founder Battus is said to he the illegitimate son of a Theran aristocrat and a Cretan princess (Herodotus, 4. 154–55), and similar imputations of illegitimate birth may be inferred from the name of the Spartan Partheniai ("maiden-born") who are said to have colonized Tarentum (Strabo, 6. 3. 2).

It is most unlikely that prospective colonists were entirely ignorant of their destinations. A small quantity of Protogeometric (10th-century) material has been recovered in the region of Tarentum while Greek cups dating to Middle Geometric II (early 8th century) are attested at Etruscan Veii; Cumae, Capua, and Pontecagnano in Campania; Scoglio del Tonno in Puglia; and Villasmundo in eastern Sicily. This would suggest either direct knowledge of the west on the part of Greek traders or at least indirect knowledge passed to Greek manufacturers by mercantile middlemen (probably Phoenicians). In some instances colonies were established on virgin soil (e.g. Pithecusae) – sometimes with the explicit blessing of neighbouring indigenous populations (Megara Hyblaea, Cyrene) – though on other occasions the colonizing effort required forcible occupation of the land (Thasos) and often subjugation of the former population (Syracuse, Heraclea Pontica). Though a matter of controversy, it is probable that intermarriage fostered greater integration between new colonists and indigenous populations: Herodotus (1. 164–65) states that wives accompanied the Phocaeans who attempted to colonize Corsican Alalia, though in his description of the foundation of Cyrene (4. 153) – as well as the Athenian "colonization" of Ionia (1. 146.2–3) – there is mention of men only so the likelihood is that the colonists, who were normally young men, took indigenous wives upon their arrival at colonial sites. Diodorus of Sicily (5. 6. 5) explains that the native population of Sicily eventually adopted the Greek language and educated their children according to a Greek model and it is this "Hellenization" of Sicily and south Italy that would later exercise such a profound influence on the culture of the Romans.

Colonization continued – albeit on a reduced scale – throughout the Classical period. In the early 5th century eastern Locrians established a colony at Naupactus; in the 440s BC Athenians settled Brea in Thrace and participated in the collective foundation of Thurii on the site of ancient Sybaris in southern Italy; and in 426 BC the Spartans issued a general invitation for Greeks (with the exception of the Ionians, Achaeans, and some others) to join them in the foundation of Heraclea Trachinia in central Greece (Thucydides, 3. 92). For the first time, contemporary literary and epigraphic testimony reveals the precise workings of colonial ventures in this period, from consultation of the Delphic oracle seeking approval for the expedition to the provisions for choosing an *oikistes*, recruiting colonists, and formalizing the relationship between the mother-city and its colony as well as providing for the right of return in the event of colonial failure. It is debatable whether the practices attested in this period had also operated in the case of the earliest colonies: the literary accounts for the earlier foundations which were first consigned to writing at this time (though they are frequently preserved only in later sources such as Diodorus of Sicily) are characterized by recurring tropes – many focusing on the "outsider" status of the *oikistes* who is directed to found a colony when consulting the Delphic oracle on a completely unrelated matter – and it is tempting to believe that individual traditions were selectively moulded to fit this new genre of foundation stories. Indeed careful reading of literary accounts reveals the existence of multiple traditions in which colonial origins are attributed to varying populations and *oikistai* (both mortal and heroic) and oracular sanction sought from other

sanctuaries besides Delphi. Colonial traditions were never transmitted for their own sake but to justify and legitimate claims to power and recognition in the present.

From the end of the 6th century BC, Athens began to found a new type of colony named a cleruchy. Although ancient authors often fail to make any terminological distinction between a cleruchy and a colony, the chief difference would appear to reside in the fact that, while colonies were normally established as autonomous foundations, residents of a cleruchy remained Athenian citizens, though the situation is complicated by the fact that later residents of Athenian colonies also often retained citizenship at Athens. In general, the function of the cleruchy seems to have been to act as a garrison over populations that were deemed hostile to Athens. Cleruchies were established at Chalcis and Salamis in the late 6th century; Andros, Chersonesus, Lemnos, Imbros, and Histiaea in the mid-5th century; Aegina, Lesbos, and Melos in the last third of the 5th century; and Samos in the mid-4th century.

A renewed wave of colonization was initiated by Alexander the Great and his Hellenistic successors, especially in Babylonia (Seleucia on Tigris), northern Syria (Antioch, Apamea), Asia Minor (Laodicea), and central Asia (Ai Khanoum). These colonies normally served the function of garrisons and were populated by both Greeks and Macedonians, though the new city of Alexandria, founded west of the Canopic mouth of the Nile Delta in 331 BC, was granted full civic status. Its original citizens were Greeks of various origins, but the city also had a large indigenous Egyptian and Jewish population.

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COMEDY

Greece has furnished us with the earliest literary examples of comedy. As a form of popular entertainment, Greek comedy is probably of greater antiquity than tragedy. The origin of the word has been connected with *komos*, meaning "a band of revellers". Their processions, with unrestrained singing and jesting, were held in honour of Dionysus, so that comedy or "the song of the *komos*", like the tragedy and the satyr play, may have had its origin in the festivals of Dionysus. Tradition attributed its invention to the Dorian inhabitants of Megara, from where it was supposed to have spread to other Dorian communities.

In chapters 4 and 5 of the *Poetics* Aristotle gives a rather cursory account of the origin and development of comedy. The gist of his account is: the Megarians, both of Sicily and of the isthmus, claim to have originated comedy; its name is (erroneously) derived from *kome* ("village"); its origin lay in the preludes to the phallic songs; the steps by which it developed are uncertain; the Sicilians introduced plots in place of mere lampoons; and comedy took longer than tragedy to receive recognition in Athens.

The transformation of the local Doric farce of Sicily into a literary form is attributed to Epicharmus of Cos (*c.*540–450 BC). Other representatives of early Dorian comedy appear to have included his contemporary Phormus or Phormis and Dinolochus, said to be a pupil of the latter. The introduction of comedy to Attica (*c.*580 BC) is credited to Susarion, who is said to have transplanted it to the Attic deme of Icaria, which is known to have been the principal centre of the worship of Dionysus in Attica, and the home of Thespis, the pioneer tragic poet, as well as of Chionides and Magnes (*c.*550 BC), who are said to have given Megarian comedy a more artistic form. Its adoption at Athens during the time of the Persian Wars ensured for comedy a place in literature. At Athens comedy became an official part of the celebration of Dionysus in 486 BC.

The evidence suggests that the ingredients of the old Attic comedy came from sources widely differing in place and time. The existence of "animal choruses" is attested by an Attic black-figure amphora of the mid-6th century BC, which depicts men disguised as horses, with riders on their backs, accompanied by a flute-player, and a 5th-century Attic vase showing men dressed as birds. Vases of the 6th century also depict grotesque satyrs as well as dancers whose dress is exaggerated behind and in front for humorous effect. The unrestrained personal abuse and gross sexual humour are anticipated in the poems of Archilochus (7th century BC) and Hipponax, and need not be traced solely to Dionysiac rituals. The dramatic element may have been derived from the secular Dorian comedy without chorus that is said to have originated in Megara and been developed by Epicharmus at Syracuse.

The earliest phase of ancient Greek comedy is known as "Old Comedy". In practice, this term refers to the comedies produced at Athens during the 5th century BC. These plays are

characterized by unrestrained satire of public persons and affairs, extremely irreverent treatment of mythology and the gods, outspoken political criticism and comment on literary and philosophical matters, as well as sexually oriented humour. The actors wore grotesque masks, and their costumes, though based on the dress of everyday life, included artificial exaggeration for comic effect. The short tunic could expose the large phallus each carried. They also wore masks of certain easily recognized types. Female roles were played by men. Accordingly, nude or exposed women must have been costumed representations of the female body. Although Old Comedy transformed ritual into art, it still retained traces of its ritual origin: the prominence given to the phallus in the earlier plays; the final festive union of the sexes in a party or marriage; and the expressed or implied references to the reproductive organs.

The heyday of Old Comedy was during the time of Pericles and the Peloponnesian War when Athenian democracy had reached its highest point of development. Cratinus (*c.*520–*c.*423 BC) and his younger contemporaries Eupolis (*c.*446–*c.*411 BC) and Aristophanes are believed to have been the foremost writers of Old Comedy. Others include Crates, Pherecrates, Hermippus, Teleclides, Phrynichus, Ameipsias, Plato (not the philosopher), and Theopompus.

The plays were composed of a blend of song, dance, personal invective, and buffoonery, and consisted of loosely related episodes. The plot was set in contemporary Athens. In most plays of Aristophanes the protagonist conceives a fantastic plan that runs counter to the natural order of things. He is opposed by the chorus whom he eventually succeeds in winning over to his side. A series of short episodes then demonstrate the consequences of the realization of his fantasy for various professions and types, usually involving a series of acceptances and rejections, and the play usually ends in a festive spirit.

From a consideration of the 11 extant plays of Aristophanes (9 of which happen to be the only completely surviving examples of Old Comedy), we may infer that, gradually, a six-part structure evolved: (1) a *prologos* or introduction in which the basic issue of the play is explained and developed: the protagonist conceives an extravagantly imaginative but absurdly impractical solution to a problem; (2) the *parodos* or entry of the chorus; (3) the *agon* or contest between opposing principals, in which the hero defends his bright idea from attacks and invariably defeats his opponents; (4) the *parabasis* in which the chorus, on behalf of the poet, speaks to the audience and attacks prominent citizens: it consisted of an anapaestic passage followed by the *pnigos* (a long sentence to be uttered in one breath), an *ode* or invocation to a god, an *epirrhewa* or satiric speech on current affairs, an *antode*, and *antepirrhema*; (5) a series of *epeisodia* or farcical scenes, usually without any sequential connection with each other but building up to a climax, lightly separated by songs of the chorus, demonstrating the consequences of the realization of the hero's fantasy both on the protagonist and on typical figures, but occasionally carrying on the main plot; (*6*) *exodos* or final scene of rejoicing generally leading up to a banquet or wedding.

Attic comedies, like Attic tragedies, were performed at the great festivals of Dionysus, namely, the Dionysia and the Lenaea. Their inclusion in the latter dates from shortly before 440 BC. Five comic poets competed on each occasion, each presenting one play (the number of competitors was evidently reduced to three during the Peloponnesian War, but this has been debated). In the 4th century comedies were also given at the rural Dionysia, but it is not known how far back this practice went.

Like a tragedy, a comedy consisted of the dramatic dialogue (for which the iambic trimeter was generally used) and the lyrical choruses. However, whereas the tragic chorus consisted of 12 (later 15) singers, the comic chorus included 24. They were often divided into two half-choruses. They wore masks and grotesque dresses to suit their parts (e.g. as birds, wasps, etc.), but removed their outer cloaks for the purpose of their dances. Their role was not generally one of reconciliation, as in tragedy, but of exciting the disputants and finally siding with the victor. On occasion, the entry of the chorus presents a moment of violence and excitement. It may be hostile to the protagonist who is faced with the task of winning them over to his side. Once this has been achieved, they applaud and reinforce what he says and does. The chorus played an important part in the Old Comedy, and, at least in the case of Aristophanes, several of the plays were named after their choruses.

The freedom of political criticism enjoyed by poets of the Old Comedy appears to have been occasionally curtailed, but it was not permanently lost until the downfall of Athenian democracy in 404 BC. The loss of imperial power and political energy was gradually reflected by a choice of material of a less typically Athenian and more cosmopolitan nature. Most notable is the reduced importance of the comic chorus. The *parabasis* disappeared altogether, and the choral odes were replaced by interpolated pieces (*embolima*) not germane to the play.

The term "Middle Comedy", which is of Hellenistic origin, has been used to designate Attic comedies written between *c.*404 and *c.*320 BC. The term is used to describe these plays because they represent a transition from Old Comedy to New Comedy, both of which have certain features in common with it. Although plays with political themes were still produced, mainly (but not exclusively) in the earlier part of the period, and politicians such as Demosthenes and Callimedon were frequently ridiculed, broadly speaking Middle Comedy avoided outspoken political criticism and open attacks on individuals, and dealt instead with typical human faults and foibles. The authors concentrated on social satire and resorted to burlesque or parody of tragedy, mythology, and the lives of the philosophers, notably Plato and the Pythagoreans.

The observation of contemporary types, manners, and pursuits was a common characteristic. Typical characters of New Comedy, such as bullies, parasites (evolved from the flatterers of Old Comedy), cooks, pimps, soldiers, stern old men, young men in love, and courtesans figured in Middle Comedy as well, although some of them, such as the swaggering soldier, can be traced back to Old Comedy at least. Their occurrence leads us to conclude that New Comedy-type plots were also anticipated in Middle Comedy. Significant also in this connection is the impact of Euripides' plays such as the *Iphigeneia in Tauris*, the *Ion*, and the *Helen*. Middle Comedy represents a period of experiment and transition. Different types of play appear to have predominated at various times, so that one may not be justified in labelling one type of play as Middle Comedy to the exclusion of all others.

The most celebrated authors of Middle Comedy were Antiphanes of Athens and Alexis of Thurii, followed by Eubulus, Timocles, and Anaxandrides of Rhodes. It is interesting to note that many of the authors were of non-Athenian origin. They appear to have been extremely prolific. More than 800 of their plays are said to have survived as late as the 2nd century AD. Athenaeus, who has preserved the majority of fragments, mentions some 57 playwrights. However, no complete example has come down to us, but the last play of Aristophanes, the *Plutus*, no doubt reflects some of the changed features.

The period of New Comedy extends from about 320 BC to the mid-3rd century BC. Its main features are the representation of contemporary life by means of imaginary persons drawn from it, the development of plot and character, the substitution of humour for wit, and the introduction of romantic love as a theme. These plays were written largely during a time of political and moral disillusionment, when Athens was no longer a free state but had come under the sway of Macedon. Political references are rare and are subordinate to the depiction of the domestic life of fictitious characters.

New Comedy offers a mildly satiric view of contemporary Athenian society, especially in its familiar and domestic aspects. There is no parody of public figures and events as in Old Comedy. Instead we meet with representations of the private affairs of average but fictitious men and women depicted without supernatural or heroic overtones.

The common subject is the infatuation of a high-born young man for a slave girl. One of the lovers is usually a foundling, the discovery of whose true birth and identity finally makes their union possible. But the romantic element is not the only ingredient and is not very significant: the girl whom the hero wishes to possess does not always appear on stage, or when she does, she often does not speak. Intrigue (especially on the part of crafty slaves on behalf of their young masters) plays an important part in the plots of New Comedy, which are articulated to a far greater extent than those of Old Comedy. The names of the slaves (Getas, Libys, etc.) reflect the economic expansion in the wake of Macedonian conquest. The resulting cosmopolitan atmosphere is matched by the mobility of the people, who constantly go abroad, be it on business, mercenary service, or as the result of misfortune. Although the characters have fixed names and masks, they differ vividly and come to life as individuals, at least in the better plays. Athenian laws of citizenship and marriage are integral to many of the plays. Yet the universality of the characters, situations, and relationships makes the plays enjoyable to those far removed from Athens in time and place. Menander, in particular, excelled at the sympathetic portrayal of various personal relationships and problems arising from ignorance, misunderstanding, and prejudice, in all of which one can recognize his debt to Euripides.

The dialogues of New Comedy are in the usual iambic trimeter, but there are trochaic tetrameters and lyrical passages too that may have been performed by the actors themselves. The chorus is so diminished in importance as to become a small band of musicians and dancers periodically providing light entertainment. The language is Attic, but closer to the koine of everyday speech. The play was apparently divided into five acts by the four choral interludes.

The most famous exponent of New Comedy was Menander (342–292 BC). His surviving work includes one complete play, the *Dyscolus*, and considerable portions of three others: *Perikeiromene*, *Epitrepontes*, and *Samia*. Some of his other plays, as well as those of his fellow New Comedy writers (Diphilus, Philemon, Philippides, Posidippus, Apollodorus of Carystus), are known to us only through their Latin translations and adaptations by the Roman comic poets Plautus (*c.*254–184 BC) and Terence (195/185–159 BC). The original Greek texts circulated widely until the 7th century AD, but were then completely lost. Until the discovery of the Menander papyri, New Comedy was known only through quotations, Roman adaptations, and echoes in later Greek authors such as Alciphron and Lucian.

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See also **Theatres; Tragedy**

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CONSTANTINE I THE GREAT 273/74–337

Emperor

Constantine the Great was born in Naissus (modern Niš, in Serbia) in 273/4, the son of the future emperor Constantius Chlorus and Helena his concubine (or perhaps wife). From 293, when his father became a member of the tetrarchy, as Caesar to the Augustus Maximian, Constantine served in the Roman army in the eastern part of the empire, first fighting in the Persian war and later serving with Galerius on the Danube; thereafter he seems to have been attached to Diocletian's court. The "Great Persecution" of the Christians began in 303, though in the west it was less severe than in the east, and in Gaul and Britain, where Constantius held sway, the persecution seems to have been limited to the demolition of churches. In 305 Diocletian, then seriously ill, and the other senior emperor, or Augustus, Maximian, resigned and were succeeded by their Caesars, Galerius and Constantius. Constantine (and Maximian's son, Maxentius) was passed over in the succession; two of Galerius' favourites, Severus (possibly his praetorian prefect) and Maximinus (his nephew), became Caesars.

After the reconstitution of the tetrarchy in Nicomedia, Constantius left for Britain, soon followed by his son. On 25 July 306, at York, Constantius died, and Constantine was immediately hailed by the army there as Augustus, his father's successor. He immediately announced his assumption of the imperial dignity to Galerius, the other Augustus, who compromised by appointing him Caesar, a position Constantine did not refuse, thus assuring beyond any doubt his legitimacy. The ensuing dissolution of the tetrarchy was a complicated business. Maxentius, initially with the support of his father, proclaimed himself Augustus in Italy. After Severus' failure to defeat Maxentius, Galerius appointed Licinius to the task, as Augustus. Galerius himself died in 311, having issued an edict of toleration, bringing to an end the persecution of Christians in the east. The following year Constantine advanced into Italy. On 28 October Maxentius left Rome and crossed the Tiber to confront the forces of Constantine. At the Battle of the Milvian Bridge he was defeated, and Constantine entered the city as the undisputed ruler of the western Roman empire. Rule of the eastern empire was now disputed between the two other Augusti: Maximinus, who had begun persecuting Christians again in Egypt and Palestine, and Licinius, whom Constantine supported. In 313 Constantine and Licinius met in Milan and extended to the whole empire the toleration Christians were already enjoying in the western part of the empire. Later that year Licinius defeated Maximinus. Harmony between the two Augusti, Constantine and Licinius, did not last long. There was an indecisive war in 316, and in 324 Licinius was finally defeated by Constantine, who thus became sole emperor, which he remained until his death.

Constantine's victory over Maxentius in 312 was presented in Constantine's propaganda as a victory for Christianity (though there is evidence that Maxentius supported the Christians too), and very soon there circulated stories that before the battle Constantine had had a dream (so Lactantius), or a vision in the sky (so Eusebius), in which he had seen the cross as an emblem of victory, which he was to use as his military standard: the *labarum*, bearing either the chi-rho or the *crux monogrammaticum* (so Lactantius, who says that it was inscribed on the shields of Constantine's soldiers). This dream or vision is presented as Constantine's conversion. There is in fact evidence that Constantine was far from unfamiliar with Christianity: the name of one of his half-sisters, Anastasia, may indicate long-standing Christian leanings in his family, and Constantine seems to have included Christian bishops in his entourage before the victory of 312. It is, however, clear that after 312 Constantine adopted Christianity as his favoured religion and made it the object of his considerable patronage. There is also evidence from coinage that like his father he maintained his devotion to *sol invictus*, the "unconquered sun", but it is not unlikely that, like later Roman Christians we hear of from pope Leo I (440–61), he had no problem in assimilating Christ and the *sol invictus*. As to the motives for his conversion, there is continuing scholarly dispute over whether it was a response to the growing Christianization of the empire, or a precondition for its ensuing Christianization. The pagan rumour (preserved by Zosimus) that Constantine embraced Christianity as the only religion that could offer forgiveness to one who had murdered his wife and son in 326 is perhaps not entirely without foundation. At any rate, Constantine only became a baptized Christian on his deathbed in 337.

Constantine's support for Christianity is manifest in his providing funds for the building of churches, initially in the west, but soon in the east, and also in the introduction of changes in the law to meet Christian sensibilities (for instance recognizing bishops as legitimate legal arbiters). It is perhaps also manifest in his founding in 330 the city of Constantinople, named after him, or "New Rome". However, Eusebius' account of Constantine's planning a Christian city with many churches is not borne out by the surviving evidence: it seems that the only church begun by Constantine was the church of the Holy Apostles, intended as his mausoleum where his body would rest as that of the 13th apostle. The Christian Church, the object of Constantine's favours, very soon presented problems for him. In north Africa he found a Church divided by Donatism, and quickly discovered that Christian disunity was not easily dealt with. Even worse, when he had attained his ambition as sole emperor in 324, he found the Church in the east divided over the issue of Arianism. To solve this he convoked a synod, the first Council of Nicaea, which within a decade or so was to be regarded as the first ecumenical (or universal) council: Arius was condemned and the Christian faith defined in a creed (or symbol) drawn by the council. Constantine's involvement in the affairs of the Church has often been seen as the beginnings

of Caesaropapism, though it has recently been forcefully argued (by Barnes) that Constantine and his immediate successors were scrupulous in respecting the government of the Church by bishops meeting in synod. Despite the clear decision of the Council of Nicaea against Arianism, Constantine seemed to compromise in his later years (at least in the eyes of the Orthodox) and received baptism from the hands of an Arian bishop, Eusebius of Nicomedia.

Constantine's reputation as the first Christian emperor was enormous: more of his successors bore the name of Constantine than any other, the last dying in defence of the city Constantine had founded in 1453. The vision of the cross that was the occasion of his conversion led to its becoming a symbol closely associated with Constantine (and the imperial office), which was enhanced in legend by his being closely associated with his mother Helena's discovery of the True Cross in 326. The shadow cast over his name by his having been baptized on his deathbed by an Arian was removed by the legend that he was baptized in Rome after his victory at the Milvian Bridge by pope Sylvester I. He is commemorated as a saint in the Orthodox Church, together with his mother Helena, on 21 May.

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Biography

Born at Naissus in Serbia in 273/74, the son of Constantius I and Helena, Constantine served in the Roman army from 293. When Constantius died at York in 306, Constantine was proclaimed as his successor by the troops there. After victory at the Milvian Bridge in 312 he entered Rome as ruler of the western part of the empire; and in 324 became sole ruler of the whole. Constantine was a supporter of Christianity and in 330 founded the city of Constantinople as a new, Christian, capital. He died near Nicomedia in 337.

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CONTRACEPTION

Ancient and medieval Hellenic peoples employed contraceptive drugs administered topically and orally as one of a variety of means of birth control. Soranus (*fl.* AD 98–117) said that "a contraceptive (*atokion*) differs from an abortive (*phthorion*), for the first does not let conception take place, while the latter destroys what has been conceived." Even though the Greek language distinguished conceptually between contraception and abortion, writers often mixed the two actions, according to modern scientific nomenclature. Generally the pharmaceutical actions were hormonal, usually stimulating or decreasing either oestrogen or progesterone, resulting either in contraception or disruption of implantation. The latter we call an abortifacient, but to early Hellenic people the distinction was not so sharp. In ancient and Byzantine times it was thought that the sperm remained in the womb for a period of weeks before acceptance and foetal formation.

Plato and Aristotle regarded population control as a function of the state, whereas Polybius and other Hellenistic figures thought that a decline in Greek influence was attributable to decisions by families to have fewer children. Medical sources regarded contraception as preferable to abortion because of the relative safety of the former. A Homeric hymn, for example, thought that Zeus permitted the Trojan War because the earth had too many people. In the Greek myth, Persephone was told not to eat anything but she disobeyed by eating a pomegranate, a widely used contraceptive in Greek and earlier Near Eastern cultures.

The most famous contraceptive was silphium, the name given to a small tree of the *Ferula* genus, whose contraceptive qualities were discovered and marketed by Greek colonists in Cyrene. The Cyreneans enjoyed a virtual monopoly because attempts to transplant and cultivate it failed. By the 1st century AD the plant was very scarce and expensive. The last reference to it occurs in a letter by Synesius of Cyrene (4th century) who reported that his brother had some growing on his farm. The plant is known to have been an effective contraceptive because plants of related species that later Greeks substituted for the extinct silphium have been proven to be effective contraceptives in animal and human testing.

Coitus interruptus was seldom employed as a contraceptive measure to judge by the paucity of references to it. Those few references, however, indicate that the procedure was known. Barrier methods were not known. Some pessaries prepared as drug prescriptions with specific ingredients and administered on wool pads could possibly have resulted in mechanical blockage of sperm progression. The Hippocratic work *On Generation* (5. 1) said that the practice was for women who did not wish to have a child to expel "the sperm from both partners". Contrary to a number of philosophers, Aristotle regarded males as the sole providers of sperm, and hence the source of life, with women supplying only nourishment.

Magical devices in the form of amulets, talismans, and incantations were employed as contraceptive means. Soranus, the gynaecologist of the early 2nd century, ridiculed such means, although Galen and other Greek medical writers sometimes included these devices among the contraceptive prescriptions. The anomaly is that from the standpoint of modern pharmaceutical knowledge the drug prescriptions were to some degree effective. For example, Aetius of Amida (*fl.*AD 502–25) attested to the efficacy of wearing weasel liver, this among otherwise perfectly rational medical lore.

The existence of male contraceptives was known but seldom were details related. Dioscurides (*fl. c.*AD 50–70) related that a plant called *periklymenon* was a male contraceptive, but this plant has never been identified. In Talmudic sources there are references to unspecified root poisons that prevent conception when used by both males and females. Galen said that the chaste tree (*Vitex agnus-castus* L) was employed by athletes and certain priests to prevent erections. Recent tests using an extract of the plant show that in dogs its action is to disrupt sperm production. The paucity of references to male contraception, however, probably indicates a seldom-employed practice.

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See also **Abortion**

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COPAIS, LAKE

Drained lake in Boeotia

Lake Copais is the fourth in a series of basins in a great valley running with the river Kiphisos from west–northwest to east–southeast for some 130 km. The corridor is separated from the Gulf of Corinth to the south by the ranges of Mount Parnassus and Mount Helicon, the latter directly south of lake Copais. The lake was formed through crustal disturbance and enlarged through erosion and dissolution of the surrounding limestone. It was fed by the waters of the Kiphisos, which then progressed towards the sea through limestone ridges and the lakes Iliki and Paralimni. Sedimentation in the lake bed led to an increasing shallowness of the water; before 1886, seasonal changes in temperature caused an alteration between lake in winter and swamp in summer.

Archaeological survey and excavation have revealed Palaeolithic and Neolithic occupation around the lake, and shown that the region was relatively densely inhabited in the Bronze Age. Tradition recorded by Strabo (9. 415) and by Pausanias (1.9. 3, 8. 33. 2, 9. 38. 7) held that the "Minyans" (after the mythical king Minyas) had drained the lake and cultivated the plain. The archaeological evidence for the drainage of the lake rests on two bases: observations of dykes, drainage, and canal works in and around the lake, and an apparent system of fortified enclosures or settlements encircling the lake.

The known ancient drainage works include two immense canal projects: one canal was created on the south and east side of the lake, the other on the north side; these were united at Agia Marina, in the northeast corner of the lake and about 1 km north of Gla. These canals are breathtaking examples of Mycenaean hydrological engineering works. With a combined length of over 50 km, they seem to have been designed to channel the waters of the Kiphisos and Melas rivers, and perhaps of smaller tributaries, away from the central bed and towards the north and east, where natural sink holes take the water to the sea. The canals are massive, in correspondence to the volume of water involved. At one point on the southern route the channel is 41 m wide and enclosed on one side by a dyke 19 m thick. Where the two routes meet, the channel is as much as 60 m wide. Archaeological investigations have been sporadic, but where observations have been possible the dykes have been revealed to be stone-built constructions.

Gla is the largest of a series of Mycenaean fortified sites around the lake. In the northeast section alone three other fortified sites overlook the plain, and elsewhere they include a fort at ancient Haliartos overlooking the southern channel and several sites on the north side. Although Gla is the only one of these sites to have been seriously investigated, the indications are that, with Gla, all of these sites were founded in the Mycenaean heyday and their period of use did not extend much beyond the end of the Mycenaean palace period. This suggests very strongly that the entire system of fortified sites and drainage projects formed a cohesive unity in draining, maintaining, and protecting the lake bed.

Gla is by far the largest of Mycenaean fortified sites, enclosing an area ten times that of Mycenaean Athens or of Tiryns, and seven times that of Mycenae itself. A massive Cyclopaean wall generally 3 m thick runs for 2.8 km around the perimeter of a rocky outcrop that would have been an island before the lake was drained. It is pierced by four gates, one of them double; from two of these gates, roads have been traced for some distance into the plain, further proof of the effectiveness of the drainage operations. The enclosed area, nowadays barren rock and scrub, appears to have been relatively open in Mycenaean times: only a central portion in front of the southern gate and running to the north wall was built upon. Part of this appears to have been taken up with stables and storerooms. Towards the north, where the rocky islet reaches its summit, an L-shaped block of rooms forms what is assumed to have been the administrative and perhaps religious centre of the site. These rooms, generally small, were plastered and painted and show some of the refinements of Mycenaean palatial architecture. The built area occupies less than one quarter of the enclosed area of Gla; it may be that temporary structures occupied the rest of the area, especially during the construction phase of Gla itself and the drainage projects in the lake.

Important Mycenaean sites are located at Thebes to the southeast and Orchomenus to the west. Recent fieldwork suggests that hydrological works extended as far as Orchomenus in the form of a small artificial lake created in the vicinity of the town. Orchomenus is thought to have been the site of a Mycenaean palace and certainly boasted the greatest of all tholos tombs, the Treasury of Minyas, which was modelled on the Treasury of Atreus at Mycenae. It seems logical to assume that the drainage of Lake Copais was orchestrated from there, and that, beginning with Gla, a number of fortified settlements were constructed to maintain and control the drainage system and the agricultural land that resulted from it. If Thebes were in any way a hostile centre, that would further explain the fortifications.

By the historical period the drainage system seems largely to have collapsed, probably in the wake of the collapse of Mycenaean political structures *c.*1200 BC. Sporadic attempts were made either to repair the system or to undertake new drainage projects, some of which may well have been smaller-scale but nevertheless successful. Crates of Chalcis, under the tutelage of Alexander the Great, is supposed to have attempted to drain the lake; perhaps the most striking remnant of this period is a tunnel at the northeast end of the lake, unfinished but destined

to carry the waters off to the sea in much the same direction that the (presumably blocked) sink holes had done in previous years. Other repairs were undertaken in the Roman period, but it appears that the lake was never again drained in any systematic manner; instead small-scale, localized projects were undertaken.

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COPPER AND TIN

Copper was one of the earliest metals to be exploited, partly for its metallurgical qualities, but also because, like gold, it can occur in nature in its native form. However, the native metal was never a major ore in antiquity and it was an important step when it was realized that copper could be produced from other disparate-looking materials. The earliest copper production probably began in the Sinai peninsula, but the most important source of copper in the Bronze Age was the island of Cyprus. There were no major sources of copper in mainland Greece that were exploited in antiquity, although recently it has been mined on the Chalcidice peninsula. Other minor sources were in Anatolia and Palestine.

Initially, copper was used in its pure state to make tools and weapons. However, the usefulness of this material was limited by its relative softness. It was only when it was discovered that the hardness could be increased by alloying with arsenic, and later tin, that bronze became widely used, principally in armour, weapons, bowls, tripods, statuary, and tools. It was always an expensive material as all the ingredients had to be imported. It was eventually partly supplanted by iron and steel, possibly in response to a shortage of tin.

Copper production started on Cyprus in the Chalcolithic Age, 3800–2500 BC, but only reached its peak during the late Bronze Age, 1600–1100 BC. The predominance of Cyprus was due to the richness of the ores, and their early discovery. The earliest ores to be exploited were from colourful altered zones on the surface – iron and copper-rich rocks called gossan. However, the early Cypriots discovered that beneath many of the gossans lay rich deposits of primary sulphide ore, that were easier to work than the deposits on the surface. Every gossan on the island was explored for copper at this time. Production was at its maximum in the early 13th century BC, when the characteristic "oxhide" ingots were produced. The coming of the Iron Age reduced the importance of copper, but exploitation continued until the end of the Roman empire. The only ancient description of copper exploitation was given by Galen, the Roman physician, in AD 162.

The ancient mines and smelters were centred around Skouriotissa and Kalavasos. The volume of the slag heaps indicates that about 200,000 tonnes of copper was produced, mostly before Roman times. The mining was mostly underground, at depths of 185 m. Water pumps have not been found, hence the mines must have been constructed to drain naturally.

The copper deposits of Cyprus formed on the ocean floor, which was lifted up to form the Troodos mountains during the convergence of Africa and Europe. The upper part of the ocean floor was formed by volcanic eruptions of basalt. Ocean water circulated through these piles of hot lava and dissolved some of their minerals. Where these hot springs debouched, underwater cooling caused precipitation of the dissolved minerals to build chimneys and mounds – these are the well-known hydrothermal vents, or "black smokers", still to be found at mid-ocean ridges, particularly in the Pacific. These chimneys are rich in sulphide minerals, such as pyrite and chalcopyrite, the main copper mineral. The copper ore of Cyprus always contains a little gold, but not usually enough to be exploitable. However, some gold was concentrated during weathering of sulphide deposits on the sea floor to produce ochre. This was exploited for gold in antiquity, but was never a major source of the metal.

The copper ores were smelted in several steps. The sulphide ore was roasted in air to convert it to the oxide. This was mixed with a flux of quartz and iron-manganese oxides (umber), to increase the fluidity of the molten material, and charcoal to react with the oxygen and convert the oxide to the metal. The raw metal was refined by remelting and cast in "oxhide" ingots weighing about 20 kg.

Copper has many useful qualities, but it is not a hard metal. This is why the discovery that the hardness of copper could be improved by alloying with other metals was so important. The first alloys were with arsenic. This occurs with copper at a few deposits in Cyprus (Pevkos, Laxia tou Mavrou), and smelting would have made a natural alloy. Later it was found that the addition of tin made the best bronze. This discovery was long in coming, partly because tin and copper occur together so rarely.

Most deposits of tin are associated with granite. The main ore mineral is the oxide, cassiterite, which crystallizes in the granite itself or from watery fluids released during crystallization. This heavy, resistant mineral is released when the rock is weathered and can be concentrated in river sediments in the same way as gold. Such placer deposits were easily exploited once the value of the mineral was determined. There are no major sources of tin in the Aegean region. A minor source in eastern Turkey was exploited in the Bronze Age, but most tin must have come from much more distant sources. There are minor deposits of placer tin in the Eastern Desert of Egypt, but tin-bronze was not used there before 2000 BC, and there is no evidence that it was exported. One possibility is that tin came from Malaysia, a region still rich in tin today. Later on, the Iberian peninsula became an important source. Southwest Britain may have been another source – it was certainly exported from there by Roman times. Cassiterite was smelted by heating with charcoal.

Another important copper alloy is brass. This copper-zinc mixture seems to have been known in Greece from about 700

BC, possibly by the name *oreichalkos* (copper of the mountain). Early brass may have been made by smelting natural mixed copper-zinc ore, possibly in Cyprus or Asia Minor, but it is difficult to get much zinc into the copper by this process. Later on, high-zinc brass must have been made by deliberately alloying zinc and copper. This is difficult as zinc boils at a lower temperature than copper metals. It is possible by heating copper metal, zinc ore, and charcoal powders in a closed crucible at 920° to 1000°C.

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See also **Geology; Metalwork**

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CORCYRA

Ionian island

Corcyra (Kerkyra in Greek) has never been as "far from the busy haunts of men" as the Scheria of the *Odyssey* with which, by Classical times, it was commonly identified. Its advantageous position on the main trade route between Greece and Italy attracted Corinthian colonists (probably in 734 BC, certainly by about 705), the Eretrians from Euboea whom the Corinthians apparently expelled, and their many successors.

The main Corinthian settlement was on the Palaeopolis peninsula and included, by about 600 BC, an Archaic temple to Hera. Corcyra prospered rapidly and as a result became even more independent of the mother city than most Greek colonies; in about 664 BC it inflicted a naval defeat on the Corinthians. Nevertheless, the history of founder and colony continued to intertwine: they were co-founders of the colonies of Epidamnus (*c.*625 BC; Roman Dyrrachium; modern Durazzo and Dunës) and Apollonia (*c.*600 BC) in Illyria; for a time Corcyra was controlled by the Corinthian tyrant Periander (d. 586 BC); and conflict between the two states was a prelude to and a cause of the Peloponnesian War.

In 435 tension between Corcyra and Corinth, the result chiefly of the islanders' perceived lack of respect for the Corinthians and lack of interest in Greek affairs more generally, became an open quarrel over the affairs of Epidamnus. Broadly speaking, Corinth supported the *demos* (ordinary citizens) of Epidamnus and Corcyra reacted by supporting the oligarchs. Again the Corinthians were defeated at sea. Epidamnus was taken and Corcyra, for the time being at least, was established as the dominant power in the region. The islanders could not, however, afford to stand alone, given the place of Corinth in a pattern of powerful alliances, notably with Sparta. Therefore, in 433, they formed an alliance with Athens. To avoid breaking the existing Athenian entente with Corinth this was conceived as "defensive". But later, in 433, Athenian reinforcements played a crucial role in averting the defeat of the islanders by a Corinthian armada of 150 ships; the larger war – which broke out in 431 – became more likely.

In 427 BC Corcyra was riven by complicated civil war. Oligarchs and their supporters fought elements of the *demos*, who were themselves subject to internal feuding, and Athens, Corinth, and Sparta were involved both as aggressors and as mediators. When the Peloponnesians, having ravaged the south of Corcyra, had withdrawn, massacres of their supporters began; the Athenians, who had 60 ships offshore, did nothing to interfere. According to Thucydides, the victims "were accused of conspiring to overthrow the democracy, but in fact men were often killed on grounds of personal hatred or else by their debtors ... There was death in every shape and form ... Men were dragged from the temples or butchered on the very altars." For Thucydides these events provided a paradigm of the moral degeneration, cyclic violence, and collapse of law which would increasingly afflict all participants in the Peloponnesian War. In Corcyra the fighting continued; there was a new Athenian expedition in 425 and further massacre.

The alliance with Athens was eventually ended in 410 BC but was re-established in response to Spartan activities in the Adriatic in 375. Interventions by other powers continued to be frequent; the Illyrians seized Corcyra but were expelled by Rome, whose overlordship the island perforce accepted, in 229. The island served as an important bridgehead for subsequent Roman campaigns in Illyria, Macedonia, and Greece.

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CORINTH

City in central Greece

The importance and fortunes of Corinth derive in the first instance from its position at the isthmus which bears its name; as Thucydides commented, not only did this mean that Corinth controlled the only land passage from southern Greece (the Peloponnese), to central and northern Greece, but it also gave the city access to the seas, to the Aegean and the east, via the Saronic gulf, and to the west, to the Adriatic, Italy, and Sicily, via the gulf of Corinth, thus placing the city in a most favourable position for trade.

There are prehistoric settlements in the vicinity, but none seem to be of any particular significance, and certainly do not

compare to the main Mycenaean sites in the Argolid. Following the collapse of the late Bronze Age systems, Corinthia was another area into which Dorian settlers migrated, forming a small community below the conspicuous hill of the Acrocorinth, where the spring Peirene, with others, provided an abundant water supply. The place remained small until the 8th century BC, when it began to develop rapidly under the control of its principal Dorian clan, the Bacchiadae, a closeknit group who adhered more or less strictly to a custom of endogamy. Corinth then took over nearby communities, incorporating their land and sending part, at least, of their populations overseas to colonies, the most significant being Syracuse, founded probably in 733 BC. This Bacchiad supremacy lasted, according to later authors, for a period of 90 years (i.e. three generations) after which they were overthrown by a tyrant, Cypselus, the son of a female Bacchiad, Labda, and a member of another group called the Lapiths (who may have been non-Dorians): the breaking of the tradition of endogamy puzzled later Greeks, who explained it by guessing that Labda was physically unattractive. Whatever the reality, Cypselus and his son Periander consolidated the state in a reign lasting 70 years; the last of the dynasty, Psammetichus (significantly, an Egyptian name), was overthrown after ruling for only three and a half years. Thereafter Corinth had a restricted form of government, in which control was exercised by the landed well-to-do, almost certainly only a minority in the population, who therefore turned to Sparta, whose similarly restricted constitution made it the natural friend of states like Corinth. From this time Corinth was an important but essentially second-rate city. It continued its naval interests, forming in effect the fleet of Sparta. Later, in the early 4th century BC, the Corinthians turned against Sparta and in the process almost certainly broadened their constitution.

After the Battle of Chaeronea (338 BC), and following the defeat of Athens and Thebes, Corinth, or more particularly its extramural sanctuary of Poseidon at Isthmia, was chosen by Philip II of Macedon as the locale for the great conference he called to decide the future relationship between the Greek cities and himself; the result is popularly known as the league of Corinth. Probably in reality an instrument of Macedonian control, the organization lapsed in the wars of the Successors of Alexander, but was revived in 306 BC by Antigonus Monophthalmus who was the most powerful of them. For the whole of this time, and for much of the 3rd century, the Acrocorinth was held by a Macedonian garrison; part of the fortifications built by Antigonus' son, Demetrius the Besieger, are still visible, incorporated into the later medieval and Turkish walls. Corinth was one of the "fetters of Greece" and its liberation by Aratus of Sicyon, who incorporated the city into his Achaean League, was a serious blow for the Macedonians. The freedom of Corinth was finally secured by the Roman defeat of Philip V: the Roman commander, Titus Quinctius Flamininus, ironically – and knowledgeably – proclaimed the freedom of Greece at Isthmia, in the very sanctuary where Philip II had effectively ended it. The later disloyalty of Corinth, which took the Roman freedom too literally and participated in an Achaean counteraction against Roman domination in Greece, led in 146 BC to the destruction of the city by Mummius, and the ransacking of its works of art.

Yet the site was too important to be obliterated, and a century later the city was refounded by Julius Caesar, but as a Roman, Latin-speaking colony. Some of the buildings of the Greek city survived, such as the 6th-century BC temple to Apollo, built shortly after the downfall of the tyrants. Others, such as the ruined long portico or stoa, to the south of the temple, were refurbished to serve as public buildings in the new city. The area between temple and stoa, which had been a gymnasium complete with a running course, became the forum of the Roman colony, with Roman-type temples constructed at its western end. The Roman colonists were presumably allotted estates, but it is clear that a Greek population still survived – St Paul wrote his epistle to the Corinthians in Greek, and in the course of time Greek ousted Latin. The city flourished. Although Athens was the academic centre of Roman Greece, Corinth was its political capital. This continued into the Byzantine period; one of the largest basilical churches in Greece was constructed at Lechaeum, Corinth's harbour on the gulf of Corinth. This prosperity persisted well into the middle Byzantine period, after which it suffered a sharp decline. There was a revival in the 10th century AD, and subsequently. Corinth was occupied by the Franks, and recent excavations are beginning to reveal good-quality buildings of this period. The final decline came with the Turkish occupation (1460). Acrocorinth, still a strategic key to the control of Greece, was refurbished and occupied by a Turkish garrison until the Greek War of Independence, but the town dwindled to an insignificant village. The revived Corinth of modern times was shifted to a more convenient location by the sea, on the gulf of Corinth.

Corinth's contribution to Greek civilization was considerable. Its trade links in the late 8th and 7th centuries BC both with the Near East and with the west not only brought it prosperity, so that its wealth was proverbial – "not everyone is fortunate enough to sail to Corinth" – but were also responsible, to a large extent, for the development of oriental motifs and forms in Archaic Greek art. Its painted pottery of this period seems to have been prized over a wide area (perhaps for the contents of the perfume flasks as much as their decoration) and is found ubiquitously. Less well preserved, but certainly more highly valued in antiquity, was Corinthian bronze ware. Much of this was buried in graves at Corinth itself, and after Mummius' sack of the city created a taste for Corinthian metalware in Rome. Nekrokorinthia – funerary items plundered from the graves–were highly prized by the wealthy Romans who could afford to collect them. Perhaps the most lasting contribution of the Corinthians was the creation, in the early 7th century BC, of the Doric order of architecture, for which the earliest evidence is at Corinth and Isthmia (the Corinthian order is later and developed elsewhere). All this impetus came in the crucial Archaic period. Though Corinth was less important later, its contribution to later civilization has endured to the present day.

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CORINTH, SACK OF 146 BC

The sack of Corinth was the event that symbolized the end of Greece's autonomy in antiquity. Its destruction had its roots in the declaration of Greek independence made by the Roman general Titus Quinctus Flamininus at the Isthmian Games in 196 BC. After defeating Philip V, king of Macedon, in the Second Macedonian War, the Romans decided not to cripple the Macedonian kingdom because they had no imperialistic ambitions in Greece; rather, they wanted Macedonia to serve as a buffer against the powers in the east, the barbarians in the Balkans, and even Greece itself. The Romans thus granted Philip favourable terms, with the stipulation that he withdraw completely from Greece, and decreed that all Greek cities were to be free and governed by their own laws. The Greeks and Romans had conflicting views on what freedom (Latin: *libertas*; Greek: *eleutheria*) meant, however. The Greeks interpreted their newly bestowed freedom as complete autonomy and the absence of Roman interference in their affairs. The Romans, on the other hand, expected the Greek states to give them their loyalty and support. As Ernst Badian has shown, foreign policy was a microcosm of the patron–client relationship in republican Roman society, and the Greeks failed to perceive this. Whereas Rome expected cooperation and a sense of loyalty, the Greeks displayed a callous disregard for them and continued to carry out their centuries-old internecine wars and struggles.

Many Greeks resented Rome's settlement with Philip. Sparta, for example, was angry that it had lost the city of Argos, while the Aetolian League was embittered when it did not receive, as it had hoped, all of Thessaly but instead saw most of the territory divided into four separate confederate states. Relations between Rome and Greece quickly deteriorated, proving the folly of Rome's hands-off policy expressed by Flamininus at Isthmia. The Aetolians invited into Greece Antiochus III, king of Syria, who was quickly taken care of by the Romans in 191 BC: Antiochus' forces were overwhelmed at Thermopylae, forcing him to beat a hasty retreat to Asia Minor. The Third Macedonian War (171–168 BC), waged by the Romans against Philip's son Perseus, proved disastrous for Greece. Although few Greek cities actually sided with Perseus, Rome's anger did not fail to fall on Greece. One thousand Achaeans were deported to Rome because of suspicious loyalty; 500 Aetolians were executed after a farcical trial; 70 Epirot cities were destroyed, with 150,000 of the population sold into slavery; and the island of Rhodes was economically crippled by the establishment of Delos as a free port.

The end of Greek independence was the result of the actions of the Achaean league. In 150 BC the surviving 300 of the original 1,000 Achaean detainees returned and found the League in conflict, yet again, with Sparta, this time over a boundary dispute. The Spartans, although members of the league, appealed to Rome for arbitration. The league, which could not tolerate such insubordination by one of its members, decided to punish Sparta; because Rome had not previously interfered with how it conducted its business, the league felt at liberty to bring Sparta forcibly back into its political alliance. Embassies from Sparta and the Achaean League went to Rome on three occasions, yet Rome did not respond, its hands too occupied with a revolt in Macedonia (150–148 BC) led by Andriscus, a pretender to the throne. In 148 BC Sparta declared its secession from the Achaean League, which then went on the offensive, quickly reducing Sparta to the brink of surrender. At this point a Roman embassy, led by Lucius Aurelius Orestes, arrived at Corinth to ask the league to sec reason; Orestes even threatened (although he was probably bluffing) to dissolve the league by removing from the alliance the cities of Sparta, Corinth, Argos, Arcadian Orchomenus, and Heracleia-ad-Oetam. The reaction was furious, and a second Roman embassy, led by Sextus Iulius Caesar, failed despite conciliatory overtures. In the spring of 146 BC Quintus Caecilius Metullus, the Roman general in Macedonia, sent yet another embassy to the league, which had assembled at Corinth. The envoys were rudely treated by the assembly, heavily composed of lower-class workers who, traditionally, were hostile to Rome because of its policy of supporting local aristocracies. The League then officially declared war on Sparta, although this was tantamount to war on Rome. The Roman Senate reacted by instructing Metullus to march south from Macedonia and the new consul, Lucius Mummius, to set sail for Greece with a fleet. As Erich Gruen has convincingly argued, the league was shocked and stunned by this development: in the past the Romans had not interfered in Greek internal struggles, and so the league had assumed that it was free to punish a city that had defected from its membership. But Rome's patience had worn out and foreign policy was no longer in the hands of men like the Scipios and Flamininus; more importantly, Rome could not tolerate a war in the Peloponnese at the very time that it was settling affairs in northern Greece.

The league struck first by marching against Heracleia-ad-Oetam. Metullus soon arrived and cut the Achaeans to pieces in three separate battles. The league then ordered 12,000 slaves freed to serve as reinforcements to a ragtag army raised to defend the isthmus. Meanwhile Mummius had assumed command of the Roman army and met the Achaean army at Leucopetra on the isthmus. The Achaeans were annihilated, and Corinth was captured without resistance. Rome decided to make an example of it. All survivors were sold into slavery. The city was sacked, burned, and levelled to the ground, and its land declared *ager publicus* (''public land'') and handed ower to the neighbouring town of Sicyon to till. Anything that could be carried off was taken to Rome. Stories circulated of Mummius taking out ''insurance policies'' on priceless art treasures in the event of their being lost on the voyage home, and of soldiers playing dice on masterpieces of Greek sculpture. Greece itself was subjected to a ''final solution''. All leagues were dissolved, democracies were abolished and replaced by aristocracies, and the whole of Greece was put under the responsibility of the governor of Macedonia. Later, in 27 BC, the province of Achaea was established to govern southern Greece, although this merely formalized Greece's existing total subservience. Individual cities achieved varying levels of prosperity during the empire, but mainland Greece as a political concept no longer existed. Greek independence had come to an end, but so had hundreds of years of internal strife and war.

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CORONATION

The silence of literary sources about any ceremony of investiture of a new Greek ruler before the beginning of the Hellenistic period, when eastern influences began to be felt, attests to the simple assumption or seizure of power, perhaps celebrated by a banquet at which laudatory speeches could be delivered. The exception is Macedon, since at least theoretically the king was elected there by acclamation of the army. A vestige of this practice persisted in Ptolemaic Egypt where, certainly until its severe ethnic adulteration in the early 2nd century BC, the Macedonian royal bodyguard retained the right of approval of new sovereigns.

Crowns (at least in the form of garlands) did exist in Classical Greece, but they were worn by priests in the exercise of their rituals, orators, and especially symposiasts. Initially vegetal, they came to be made of gold, and some delicate funerary examples of this latter type have survived. The awarding of crowns for excellence at athletic and dramatic festivals encouraged their increasing use as symbols of merit in other spheres (the most famous example is Ctesiphon's proposal that Demosthenes be crowned at the Dionysia for his sage political advice). Such crowns could be awarded also to a whole state and were so frequently expected and received by rivals in the Wars of the Successors after the death of Alexander the Great that their value was often demanded in cash in lieu of the actual artefacts, a practice which by the Byzantine period had been formalized as a tax. As symbols of their position Hellenistic monarchs held a sceptre and wore purple garments and a diadem consisting of a white cloth knotted behind with free-flowing ends (this last was first assumed by Alexander, probably to advertise his conquest of Asia since Greeks had hitherto not worn diadems to indicate kingship, while Persians had).

Early Byzantine emperors naturally followed Roman tradition, since they were Latin-speaking and nobody recognized any break in the continuity of the empire despite its new orientation. Augustus' fiction of the re-establishment of the republic meant that in theory emperors were chosen simply as "first citizens" by the will of the people, which in practice ensured that after they had taken power peacefully or by violence they were begged to assume that same power by a compliant senate. Frequently they were first acclaimed *imperator* by their soldiers, a practice that evolved from this title being temporarily bestowed upon triumphing generals by their troops. Acclamations of welcome are first documented at Trajan's accession in AD 98 and thereafter were an increasingly ritualized part of these (and numerous other) imperial occasions. An important act at accession became the distribution of largesse to soldiery and populace. The diadem, famously refused by Julius Caesar in 44 BC, was not worn by the early emperors, but in radiate form it had become the chief imperial numismatic *insigne* by the 3rd century AD.

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COS

Island in the Dodecanese

The island of Cos is the largest of the Dodecanese after Rhodes (although only about one-fifth of its area), and lies close to the coast of Asia Minor; its long, narrow shape, with an area of 282 sq km, extends, at its northeastern end, into the gulf separating the headlands of Halicarnassus (now Bodrum) and Cnidus. It has been known by several names, from the Cos Meropis of Strabo and the Caris of Stephanos of Byzantium to the medieval Lango (referring to its long shape) and the Turkish Istanköy.

The island has two prominent mountain formations, with the two highest points being Oros Dikaios towards the northeast (846 m) and Oros Latra in the southwest (428 m). Most of the rest of the island is quite fertile, with a light, sandy soil, and has always produced much fruit, vegetables, and wine, while its silk was famous in antiquity for its fine texture.

Although populated since earliest times, and later colonized by both Carians from Halicarnassus and by Dorians, the island did not play a part of great importance in Greek history until the mid-4th century BC, with the foundation of the city of Cos. Thereafter it rapidly became one of the main maritime and trading centres of the Aegean, and was later to be the second city of the province of the Islands.

The artist who was perhaps the most famous painter of the ancient world, Apelles, was a native of Cos, and although his renown meant that he worked in many other parts of Greece,

Pliny (*Naturalis Historia*, 35. 80) in his account of his life said that he was working at Cos on a painting of *Aphrodite Anadyomene* when "death grew envious of him" and he died with the work unfinished. Also on Cos was a marble statue of *Aphrodite* by the equally famous 4th-century BC sculptor Praxiteles; he had carved two versions, one clothed and one naked, and offered them both for sale at Cnidus; Pliny (*Naturalis Historia*, 36. 20) relates how the people of Cos chose the clothed one, "thinking that this was the sober and proper choice to make".

It was to be the association of the island with Hippocrates, the father of the medical tradition who was born there *c.*460 BC, that lay behind the foundation of the Asclepieum; this was to bring worldwide fame to Cos as a centre of healing. The "Hippocratic oath", named after him, still forms the basis of contemporary medical ethics throughout most of the world, and must be seen as one of the main gifts of the Hellenic world to international medical culture; in revised form it is still actively applied. The Asclepieum was founded after the death of Hippocrates in the mid-4th century BC, and its priests, the Asclepiadai, became known for performing medical cures that followed the teaching of Hippocrates. It developed and prospered over several centuries, eventually reaching the hugely impressive monumental complex that has now been excavated, before major destruction in the 6th century AD. Today it is the island's most visited site.

It may have been the fame of the island in late antiquity that accounts for its importance in early Church history. It was to be one of the three Aegean islands that were represented by bishops at the First Church Council at Nicaea of AD 325 (the other two were Rhodes and Lemnos), and the bishop of Cos, as a suffragan of Rhodes, was present at all major subsequent councils. Several important early Christian basilicas were built on Cos, and those excavated at Hagios Stephanos, Zipari, Mastichari, and in the town of Cos itself all have impressive floor mosaics.

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COSMOLOGY

One of the most significant contributions of Greek civilization to the world is the speculative study of the universe. In the 6th century BC the earliest Greek philosophers made the momentous step of viewing the world as a product, not of divine beings exercising supernatural powers, but of natural substances exhibiting natural powers. Why precisely the Greeks of the 6th century made this step is not clear, but modern science can be identified as the legacy of that tradition.

The mythographers of the 8th century BC, Homer and Hesiod, accepted from tradition a world in which a flat circular earth, bounded at its edge by the ocean, lay between a firmament of heaven (Ouranos) above and gloomy underworld (Tartaros) beneath. According to Hesiod, the world arose when Chaos (a yawning gap) was born, followed by the birth of Earth, Heaven, and other cosmic deities. Rejecting such supernatural explanations as this, the philosophers of Miletus gave naturalistic accounts of the world and how it arose. Little is known about the theories of the first philosopher, Thales, except that he is said to have derived all things from water and conceived of earth floating like a raft on a vast sea. His successor, Anaximander, theorized that the earth was a disk with its diameter three times its height, surrounded by circles of fire veiled in mist. The fire shone through holes like spoke-holes on a wheel, appearing as the sun, the moon, and the stars. The world came to be when something productive of hot and cold separated off from the "boundless" matter of the universe. Anaximander's successor, Anaximenes, pictured a flat earth that rode on a cushion of air. The heavens rotated around the earth like a felt cap, surrounded by a boundless expanse of air.

Challenged by criticisms of Parmenides and his followers that what-is cannot arise out of what-is-not, natural philosophers of the 5th century BC emphasized the construction of the world from pre-existent elements. Empedocles envisaged a universe in which a world like ours cyclically alternates with a perfectly homogeneous sphere in which all of the four elements (earth, water, air, fire) have become completely mixed. Anaxagoras posited a world which arose out of an original chaos when a vortex motion separated the elements into distinct layers. The atomists posited an infinite void in which indivisible particles of matter, the atoms, combined and separated to create multiple worlds and their contents. The early philosophers had learned to distinguish between a world-order or world (*kosmos*), of which there might be many, and the universe (*to pan*) which contained one or more ordered worlds and all unordered matter.

The break from mythological thinking was not complete or sudden. The philosophers of Miletus tended to endow the original stuff of the universe – water, "the boundless", or air – with divine qualities and to view it as an autonomous agent. Empedocles and Anaxagoras posited personified forces alongside their elements: Love and Strife (i.e. attraction and repulsion) for Empedocles, a cosmic Mind for Anaxagoras. The atomists finally did away with personified agents altogether, accounting for all changes merely on the basis of the motions of atoms. Early Greek philosophy had arrived at mechanistic explanations of the natural world.

In the 4th century BC the philosophical tradition turned strongly against such approaches to cosmology. Steeped in Socrates' ethical philosophy, Plato criticized natural philosophers for describing how natural phenomena took place while ignoring the fact that the world is organized for the best. To the scientist, mechanical explanations should be preliminary to teleological explanations. In the *Timaeus* Plato sets out to produce a new kind of cosmology based on his principles. Introducing a divine craftsman, the Demiurge, Plato shows how he must have arranged the world for the best, as a copy of an eternal paradigm. The Demiurge forms the earth as a spherical body enclosed in a heavenly sphere pervaded by soul. Outside the cosmos there is nothing. The traditional gods, who are born later, design the human body as the best vehicle for the human soul. Plato explains the motion of the heavenly bodies as circular orbits carried at uniform speeds; apparently irregular motions of the planets are the result of compound motions of several circles.

Although Plato's theory seems unscientific by modern standards, it was important in several ways. First, it allowed for a synthesis of scientific explanation and human values, which seemed to be undermined by materialistic theories of the early philosophers, and hence prepared the way for an acceptance of scientific explanation by popular opinion. Second, it made teleological explanations central to science, allowing for a flourishing of biological sciences. Third, his account allowed for the possibility of developing mathematical models of the heavens, which would lead to a flourishing of astronomy. Fourth, his theory that the earth is spherical was correct, and would henceforth become the standard view on the shape of the earth.

Plato's student Aristotle devoted much effort to working out the details of a cosmos inspired by Plato. Rejecting the hypothesis of a divine craftsman, Aristotle argued that the world was not created, nor would it be destroyed. Rather it exists forever, repeating its meteorological cycles. The four elements are arranged concentrically, with a spherical earth at the centre, surrounded by a shell of water (the seas), a shell of air (the atmosphere), and a shell of fiery matter. Earth and water naturally travel towards the centre of the universe (located at the centre of the earth), air and fire outwards to the periphery. From the region of the moon outwards the heavens consist of a fifth element that some identify with ether, which naturally moves in a circle, but which participates in no other kinds of change. Hence the heavenly bodies are all changeless except for their daily and yearly motions, while all things below the moon are subject to change along with the four elements of which they are composed, which elements are transformed into one another in daily and annual cycles. The heavens are further composed of concentric spheres and the heavenly bodies that move with them. These bodies move in imitation of a first unmoved mover, which we may identify with God, a being that lives the best kind of life by exercising pure mental activity. In Aristotle's world, as in Plato's, everything is arranged for the best; for Aristotle, however, the order is not imposed from without by a craftsman but achieved by natural processes.

Aristotle provided the standard picture of the cosmos for most thinkers in Europe and the Middle East down to the early modern era. The only serious contender was the conception of Epicurus, who revived atomism with a few modifications *c.*300 BC. But because Epicureans apparently clung to the view that the earth was flat at a time when scientific arguments for sphericity had already been given (by Aristotle) and the circumference of the earth had actually been calculated by scientists to a fair degree of accuracy (e.g. Eratosthenes in the 3rd century BC), Epicurus' theory was in effect obsolete from the time he propounded it. Meanwhile, Plato's conception of the heavenly bodies moving in circles with uniform speed inspired increasingly accurate mathematical models of planetary motions, culminating in the use of epicycles, small circles drawn from a point moving on the orbits of planets. The use of epicycles and other devices allowed astronomers to describe the motions of planets very closely. But the mathematical models produced another problem: no physical theory (Aristotle's was still the most influential) could account for the epicyclic motions of planets. The more accurate mathematical description became, the less satisfactory physical theory proved to be.

In almost all Greek theories of the cosmos, the earth was at the centre. But there were exceptions: Philolaus in the 5th century BC had posited a central fire around which the earth and all other heavenly bodies revolved. In the 3rd century BC, Aristarchus of Samos put forward the correct view that the planets revolve about the sun. His theory, however, never caught on. In the 2nd century AD Ptolemy combined traditional cosmology with the latest methods in mathematical astronomy and fresh observations to produce the most comprehensive astronomical account of the ancient world as well as the best geography of the earth. His treatises subsequently became the standard textbooks for astronomy and geography.

By the 3rd century AD Neoplatonism was becoming dominant among intellectuals. Mixing mysticism with Platonism, Plotinus saw the ultimate reality as an ineffable One from which emanated a cosmic Mind, in which the Platonic Forms found place, from which emanated soul, from which in turn emanated matter. Emanation was not to be understood as generation in time but as a timeless causation from the higher to the lower. The world, then, did not come to be in time, but always was, conforming to the perfect Forms of Mind. Neoplatonic theory did not so much revise the concept of the cosmos as locate it within a hierarchy of beings. About the same time as Neoplatonism became influential, Christianity began to emerge as a leading religion. Church Fathers sought to ground Christian theology in the dominant philosophy of the time, Neoplatonism, but were forced to modify philosophical theories to accommodate their religious doctrines. The world was not everlasting, but created by God, in accordance with the Forms, which were now understood the be in the Mind of God. The heavenly spheres of Aristotle were now understood to be peopled by angels and the Classical cosmos was Christianized. But essentially the cosmos of the Christian Middle Ages, both in the East and West, was Aristotle's cosmos located in a Neoplatonic hierarchy of beings and populated with demons and angels as well as humans, created and ruled by a transcendent God, who could be identified in different contexts with Plato's Demiurge, Aristotle's unmoved mover, and Plotinus' One.

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CRATES OF MALLUS

Stoic philosopher and literary critic of the 2nd century BC

Mallus in Cilicia, in southeast Asia Minor, lay in an area that was an important centre of Stoic studies from the 3rd century BC until at least the 2nd century AD. Exactly when Crates, son of Timocrates, was born there is unclear; however, we learn from the *Suda* that he was a contemporary of Aristarchus of Samothrace (*c.*216–144 BC), from Strabo that he was also a contemporary of Demetrius of Scepsis (born *c.*214 BC), and from Suetonius that he was sent from Pergamum to Rome on a diplomatic mission at about the time of the death of Ennius (169 BC). All of this suggests that he moved to Pergamum at the time of Eumenes II (197–158 BC), the most culturally ambitious and the most tireless promoter of scholarship and the arts of all the Attalid dynasty. Crates had followers (we hear of "Cratetians"), but these may simply have been students in the Stoic tradition (the most distinguished was Panaetius) rather than members of a "school" deliberately established in Pergamum to oppose the scholarship produced in the Museum and Library at Alexandria.

Crates is much quoted in scholia, lexica, and collections of "opinions" generally (in Mette's two volumes (1936, 1952) there are 18 items of "testimonia" and 86 "fragments" – rather more voluminous than what is meant by this term in other collections – covering a total of 313 pages of printed text; See also Mette's indexes of sources). Of his works on literature only two titles appear reasonably certain: the first (*?Diorthotica*) seems to have been a commentary with textual criticism of the *Iliad* and *Odyssey* in nine books, while the second (*Homerica*) may have dealt with problems of geography and even cosmology. We have, however, no idea of the total range of Crates' Writings on literary topics: there may have been many other works, since we have "fragments" citing his opinions on Hesiod, on Alcman, on Euripides, and on Aratus, for example; but these may simply be obiter dicta to his works on Homer.

What seems fairly certain, however, is that Crates' approach to literary studies was primarily Stoic and this determined the type of scholarship that he produced. Cicero tells us that Chrysippus, another native of Cilicia, the third head of the Stoa and the person who, in his voluminous Writings, gave the definitive statement of the principal Stoic doctrines, had "wanted to harmonize [*accommodare*] the myths in Orpheus, Musaeus, Hesiod, and Homer with his own views . . . about the immortal gods, so that even the earliest poets, who had not the slightest idea about these views, would appear to have been Stoics" (*De Natura Deorum*, 1. 41). Given this manner of proceeding, it became possible for a literary critic of the Stoic persuasion to elucidate the "true" meaning that lay behind the words of an early poet, as Crates did for Homer most spectacularly (and bizarrely) when he interpreted the shield of Agamemnon (*Iliad*, 11. 32–40) as a representation of the cosmos and the shield's ten circles of bronze (line 33) as standing for the ten cosmic spheres and so on, with every detail "explained" by means of allegory (Eustathios on *Iliad*, 11. 32–40 = Mette, 1936, fr. 23a; Mette also argued for the same interpretation by Crates of the shield of Achilles, famously described at *Iliad*, 18. 463–608: cf. Mette, 1936, pp. 36–42). Likewise, a person with a good understanding of Stoic doctrines (the "truth") could see where the essential message had been corrupted, either because the poet had failed to apprehend it correctly or because errors had crept into the manuscript tradition: in either case the text could now be properly emended. This somewhat circular reasoning does not explain every emendation of Homer proposed by Crates, but it does go some way towards accounting for the remarkable freedom with which he, and other scholars, expounded the text.

Crates' great rival among literary critics was Aristarchus of Samothrace, who became chief librarian in Alexandria around 153 BC. Their differing approaches to a problem are well exemplified in a lengthy passage in the *Geography* of Strabo (1.2. 24–28), where they are described as "the leading figures in this field of knowledge [sc. literary criticism]"; where Aristarchus is replying to an emendation of *Odyssey*, 1. 24 and a hypothesis of Crates about the Ethiopians; where Strabo dismisses the arguments of both as wrong (because, in his view, each has misunderstood what Homer is saying); and where Aristarchus, whose reading is the one found in standard texts today, is described as "also indulging in a petty and pointless discussion of the text"! Overall, one has the impression not so much of a clash of "schools" but of a personal rivalry between leading scholars, such as is still found today: they do, of course, agree on some things hut disagree about much more.

Neither Crates nor Aristarchus was in any sense a narrow specialist and the passage just cited shows their interest in cosmology and geography. In Crates' case this led to what seems to have been a major innovation: according to Strabo (2. 5. 10), since the known, inhabited part of the world (that is, Eurasia and the northern portion of Africa) occupies but a small part of the total land mass of the globe, anyone who wishes to represent it accurately must make a large globe of the world (no less than 10 feet in diameter) "just like that of Crates".

There is another area, the study of the formal structure of language, where Crates and Aristarchus are contrasted in our sources. In Alexandria principles of regularity in the declension of nouns had been analysed and described, and to this principle the term *analogia* had been applied; by contrast, the Stoic Chrysippus had argued that words and the things they described frequently did not stand in any sort of harmonious relationship, and this situation he called *anomalia*, writing four books on the subject. By the time of Crates this area of study was being called *grammatike* (sc. *techne*), and Aulus Gellius tells us that "two distinguished Greek *grammatici*, Aristarchus and Crates, made a habit of defending with the utmost vigour, the former analogy, and the latter anomaly" (*Nodes Atticae*, 2. 25. 4). Obviously both ideas can be observed in declensions and conjugations;

moreover, it was the Stoics in Crates' day who made the greatest contributions to the study of *grammatike*. It should, however, also be noted that Crates preferred to call himself *kritikos* (a critic), regarding criticism as "a master-science of language, comprising grammar, linguistics, and literary criticism" (Asmis 1992, p.139).

Finally, in his work *On Grammarians* Suetonius states that in his view, it was Crates of Mallus who introduced the study of grammar to Rome: during his embassy from Pergamum he had the misfortune to fall into a sewer opening and broke his leg, so that the public lectures and seminars that he had already been giving were continued into the period of his convalescence (*De Grammaticis*, 2). It is highly unlikely that Crates could have discussed grammar without at least some mention of basic Stoic ideas; accordingly, it may not be unreasonable to see in Crates one of those Greek philosophers who presented Stoicism, possibly in a somewhat simplified form, in Rome in a manner both accessible to, and welcome among, upper-class Romans – with enormous consequences for Roman conduct in the future.

In the 20th century our knowledge of Crates' activities and importance has been greatly enhanced by the work of H.J. Mette; some of his theories, however, especially the connection posited between the close scrutiny of anomaly and the ideas of the "empirical" school of medicine, remain controversial. More recently, K. Asmis, in an important and carefully argued paper analysing the discussion of Crates in book 5 of Philodemus' *On Poems*, has attempted to reconstruct Crates' theory of poetry; in addition, and more surprisingly, she concludes that he was not a Stoic philosopher, but as a "critic" simply adopted some Stoic principles and rejected others (p.161).

CHARLES L. MURISON

Biography

Born at Mallus in southeast Asia Minor *c.*215 BC, Crates seems to have moved to Pergamum from where he was sent on a mission to Rome in 169 BC. As a literary scholar he worked mostly on Homer and was the rival of Aristarchus of Samothrace. Suetonius says that he introduced the study of grammar to Rome. He took his linguistic principles from Stoic philosophy. His date and place of death are unknown.

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CRETE

Aegean island

"Out in the dark blue sea lies a land called Crete, rich and lovely land, washed by the waves on every side, densely peopled and boasting ninety cities. Each of the several races of the isle has its own language. First there are the Achaeans; then the genuine Cretans, proud of their native stock; next the Cydonians; the Dorians with their three clans; and finally the noble Pelasgians. One of the ninety towns is a great city called Knossos, and there, for nine years, King Minos ruled, and enjoyed the friendship of almighty Zeus" (*Odyssey*, 19. 172ff., translated by E.V. Rieu). Thus Odysseus described this Aegean island which has often played an important and intriguing role in the history of the Hellenic world, especially in pie- and protohistoric times – a pre-eminence which may be partly reflected in the fact that Crete is the home of many famous Greek myths and legends, from the story of Zeus' birth in one of the island's numerous caves to Theseus' slaying of the Minotaur, Minos' stepson, a creature half man and half bull, the offspring of the union between the king's unfaithful wife, Pasiphae, and a handsome bull.

Crete is the largest Aegean island. It is approximately 250 km long and its width ranges from 58 km at its widest point, across the Psiloriti massif, to 12.5 km at its narrowest, across the isthmus of Ierapetra; it lies across the southern Aegean basin, between the southeast tip of the Peloponnese and the island of Cythera (to the west) and the Dodecanesian islands of Kasos, Karpathos, Rhodes, and the southwest coast of Turkey (to the east); the Libyan Sea separates it from the north coast of Africa (about 300 km to the south) while the Aegean Sea and the Cyclades lie to the north.

Crete is now divided into four "nomes" or prefectures grouped around the main urban centres of Herakleion, Chania (ancient Kydonia), Rethymnon, and Sitia. About 20 per cent of the present population (a little over 500,000) reside in Herakleion.

The wild, rugged, and varied landscape is largely dominated by chains of limestone mountains forming the island's backbone. The main ranges are the White Mountains (2453 m) in the west, Psiloriti or Mount Ida (2456 m) in the centre, and Lassithi or Mount Dykte (2148 m) in the centre-east. The smaller Sitia mountains lie at the eastern end of the island, beyond the isthmus of Ierapetra, and the Asterousia Mountains are situated in the centre-south, between the Mesara plain and the Libyan Sea.

Crete's main mountains slope more gently towards the north coast, where there are several small coastal plains, but the largest piece of flat land is the Mesara, in the centre of the island, on the south coast. A characteristic feature are the small high upland plains, of which the best known are the Lassithi plateau, Nida (on Psiloriti), and Omalos (in the White Mountains), from which starts Samaria, the longest (17 km) and most spectacular of many gorges scarring the Cretan landscape.

There are few rivers, often reduced to little more than a trickle in the summer, such as the Kairatos near Herakleion, and the Ieropotamos in the Mesara, which is believed to have been partly navigable in antiquity. There is also one small freshwater lake, Kournas, a short distance inland from the north coast between the modern towns of Rethymnon and Chania.

Crete has been renowned since antiquity for its wild plants and flowers, of which over 100 are exclusive to the island. Among the fauna it is worth mentioning the wild goat (*agrimi* or *kri-kri*), often depicted in Minoan art and still surviving in the wild.

Crete is most famous for its long-lived Bronze Age civilization, called Minoan after the mythical king Minos, but the

whole of the island's history is equally intriguing, as varied and rough as the landscape.

The earliest traces of human habitation go back to the Neolithic period (*c.* 7000–3500 BC). The first inhabitants were probably a small group of farmers from Anatolia, who crossed the Aegean Sea and settled at Knossos, sometime before the end of the 8th millennium BC. In the following millennia their first settlement expanded, more or less steadily, and from there groups of settlers spread to the rest of the island.

Knossos, the first as well as the largest Neolithic settlement on Crete, maintained its pre-eminence also during the following Bronze Age (*c.*3500–1100 BC), which saw the emergence and demise of the Minoan civilization. What language (or languages) the Minoans spoke is unknown, for their surviving documents were written in two scripts, known as Cretan Hieroglyphic (or Pictographic) and Linear A, which, so far, have not been convincingly deciphered: all one can say is that these scripts do not represent a form of Greek. (Indeed, a non-Greek language continued to be spoken in the cast of Crete as late as the 3rd century BC, as shown by surviving inscriptions found at Praisos). The Minoans, however, had a significant and lasting influence on the population of the other Aegean islands and on the Greek-speaking population of mainland Greece, the Mycenaeans, before eventually succumbing to their power.

When exactly the Mycenaeans gained political supremacy in Crete is still a matter of debate, but most scholars believe that this may have happened towards the end of the Late Minoan IB period, that is around 1450 BC (low chronology) or 1550 BC (high chronology). That at some point during the second half of the 2nd millennium BC: Mycenaean Greeks gained control in Crete is demonstrated by the Linear B tablets found by Sir Arthur Evans at Knossos at the beginning of the 20th century, Linear B, which is a development of Linear A, was deciphered as Greek by the British architect Michael Ventris in 1952.

Crete continued to flourish until the collapse of the Mycenaean palaces on mainland Greece (*c.*1200 BC), which heralded a period of insecurity and movements of people throughout the Aegean. In Crete this is indicated by the emergence, in the 12th century BC, of settlements on naturally defended high ground, such as Kastri, Vrokastro, and Karphi. The following period, the Early Iron Age (Geometric and Orientalizing periods, *c.* 1100–700 BC) witnessed the gradual infiltration of a Dorian population as well as the emergence of the polis or Greek city state. The Dorians eventually came to dominate the island, building substantial cities, such as Lato and Dreros, often at war with each other. Throughout these changes, several Minoan cult places – such as the sanctuary at Syme, and the sacred Dyktean and Idean caves – continued to function as places of worship. Some of the finds from the Idean cave, namely the famous votive bronze shields with figurative relief, together with lively local pottery production, show that the island was one of the earliest centres in the Hellenic world to adopt the new orientalizing fashion. Crete is also the likely home of the Daidalic style of sculpture which had an important influence in the artistic development of the Archaic period throughout Greece.

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See also **Arabs; Dorians; Linear B; Minoans; Mycenaeans**

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CULT

This article deals exclusively with pagan antiquity, because the change in the nature of belief and ritual with the coming of Christianity was so marked that it would be misleading to treat any aspect of Christian practice as having developed out of a pagan forerunner. Within the context of ancient Greek religion, "cult" refers to the rites and ceremonies of worship.

Most of the evidence for cult activity concerns official, public, service to the gods (*latreia*, *therapeia*). Participation in communal worship was one of the responsibilities of the citizen: at his trial, Socrates attempted to defend himself against the charge of not believing in the gods of the state by pointing out that he had been sacrificing regularly at the common festivals and on public altars (Xenophon, *Apology*, 10–11; cf. Plato, *Apology*, 26c).

But already in the Classical period, not even mere presence at ceremonies could be enforced, and at Athens at least, recourse was made to the "theoric fund", which provided the working poor with compensation for lost income so that they could attend public festivals. During the Hellenistic period it was not uncommon to declare public holidays during festivals, when businesses shut and people were adjured to take part. Schoolboys were often required to participate by marching in sacral processions.

The purpose of ritual was manifold: to avert the wrath of the deity, to obtain her or his goodwill, above all to establish a rapport between god and worshipper. The forms – more or less strictly adhered to – were based where possible on Homeric precedent. Thus the sacrifice performed by Nestor in *Odyssey*, 30. 418–63 served as a model for full-scale public sacrifices throughout antiquity, just as Odysseus' visit to the underworld (*Odyssey*, 11. 23–50) was the model for the worship of heroes and other ground-dwelling deities. In this sense, of being mined for guidance to correct procedure, the Homeric poems were the nearest the Greeks came to having a "Bible".

Invocations of and prayer to the deity were less important in themselves than they were to worshippers in the Judeo-Christian traditions; rather, they were integrated into the central act of public worship, that is, the donation of gifts in the form of sacrifices or votive offerings.

Animal sacrifice is the most spectacular example of this transaction. It is a procedure that the ancient Greeks had in common with peoples of the Near Fast (well summarized by West). Depending on the nature of the deity, the animals sacrificed were entirely consumed by fire, or were shared as food by both gods and men. Sacrifices of the first kind (*sphagia*, *enagismata*) were made to heroes and gods who were believed to reside underground. Heroes were dead humans whose mortal remains were worshipped, usually at the place of their burial. The purpose of sacrifice in these cases was to rejuvenate and/or revive the heroes so that they might come to the aid of the worshippers. Heroes were usually bound to a restricted geographical area. The standard method of sacrifice was to lay a fire in a pit (*bothros*), slaughter the animal over it, catch the blood and pour it or other liquids into the ground at or near the "tomb", and burn the whole carcass up. The invocation of the spirit of Agamemnon in Aeschylus' *Choephori* (84–164) is a good example of the procedure, with, in this case, a liquid offering (*pelanos*) poured out at the tomb.

The status of hero was accorded to a wide variety of persons: distant ancestors, founders of colonies (oecists), figures from epic; but in many cases the names, if they ever had them, are unknown to us. Generally speaking, when a hero's parents were known, one was divine, the other mortal (usually the mother: Achilles is a noteworthy exception). Two such – Heracles and Asclepius – became famous well beyond their original spheres, and reached the status of hero-god.

Gods, particularly those whose conventional abode was on Mount Olympus, received *thysiai*, the sacrifice of parts of animals burned on a raised altar (*bomos*). Here the model is Hesiod, who tells the "just-so" story of how the Titan Prometheus – a friend to mankind – duped all-knowing Zeus into accepting as his share of the sacrifice the fat and bones of the beast, leaving the edible meat and hide to man (*Theogony*, 538–42). In this kind of sacrifice the animal is consumed jointly by god and worshipper alike, and usually within the sanctuary itself. The valuable hides normally formed one of the perquisites of the priest.

Sacrifices often, but by no means always, took place within the context of a formal festival. There were also bloodless offerings, often occasional, such as the first fruits, and objects (ranging from items of clothing or armour to full-sized statues) symbolizing the dedicator or their achievements, offered as gifts. Some were thank-offerings for favours received (good crops, successful delivery from life's crises, such as illness or war); others were supplicatory.

The rituals of the cult were performed by "doers of sacred acts", *hiereis*, a term usually translated as "priests", which is misleading to us, because these people were functionaries rather than members of a discrete caste, the only exceptions being those officiants who introduced initiates into various mysteries, and who usually belonged to a hereditary priesthood. But even they were not set apart from their fellow citizens, except in the actual performance of their duties: for example, Callias son of Hipponicus, torchbearer of the Eleusinian mysteries and one of the richest men in Athens in the 5th century BC, negotiated the peace settlement with Persia that bears his name, Even the transmitters of the god's will at oracular sanctuaries were not priestly in our sense. Occasionally a priesthood might be restricted to a man or woman of a certain age, whose term of office might be measured in lifetimes. Most often, however, priesthoods were annual magistracies like any other.

Cult activity normally took place in a sanctuary, an area cut oft (*temenos*) from the secular world and consecrated to the deity involved (*hieron temenos*, conventionally abbreviated to *hieron*). The seclusion could be marked by a wall or a series of boundary stones. It was rare for a sanctuary to be deconsecrated (there are examples in Greek settlements in Italy). The only essential feature was a space where people could gather. Most sanctuaries had an altar for the sacrifice, and many, but not all, had a structure, the temple (*naos*, dwelling place) to house the cult image and objects dedicated to the god. The sanctuary might also include semisecular structures, such as dining rooms for the consumption of the sacrificial meals. The cult image itself represented the god as his or her proxy: the Greeks were well aware of the fact that their gods were not to be tied to any one place, and that they would favour now one, then another.

Most public cults were open to all comers. Some, however, limited their clientele depending on the nature of the ritual. The Thesmophoria, for example, were restricted to women, while some sanctuaries of Heracles barred women altogether. Mystery cults, after initial screening for ritual purity, accepted almost anybody, but the central rites themselves remained a close secret known only to initiates. It is a measure of the respect in which the ancient Hellenes held their gods that to this day we know almost nothing about these rites. This is a salutary lesson to anyone who may think that the ancient Hellenes were not serious and pious believers.

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See also **Religion; Sacrifice; Sanctuaries**

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CYCLADES

The Cyclades were named from their clustering in a rough circle round the ancient sacred island of Delos. In antiquity 12 to 15 islands were counted as part of the group. In the modern *nomos* (prefecture) there are a total of about 30 islands and islets, with the capital on Syros. The name is used in Byzantine sources with a quite different significance (see below).

Throughout prehistory people were drawn through the Cyclades, to Melos, at the southwest of the group, in quest of obsidian – a dark volcanic glass that was highly valued for cutting edges for tools and weapons. In the Early Bronze Age (mid-4th to late 3rd millennium BC), the culture of the Cyclades was distinct from that of the rest of the Aegean. During the ascendancy of the Minoan and Mycenaean palaces (2nd millennium BC), the islands shared in their cultures and were probably subject to their authority. The Cyclades were presumably part of the "Thalassocracy of Minos" mentioned by Thucydides. Their main contribution to Aegean culture of the time may have been as middlemen and experienced seafarers.

During the period of movement and change which followed the decay of Mycenaean civilization (11th century BC) new settlers arrived, mainly from Ionia (the coast of Asia Minor), but also from mainland Greece. Several of the communities which they founded then and in the following centuries grew into important centres. In the Archaic and Classical periods Naxos and Paros played important parts in the development of monumental architecture and sculpture, and various islands (Mykonos, Melos, Thera) had their own distinctive styles of pottery decoration. Several islands (Naxos, Paros, Thera, etc.) were active in the colonial movement and thus in the spread of Greek culture, especially to Italy and Sicily.

In the Persian Wars they were at first overrun by the enemy. Subsequently they joined the Delian League and became subject to Athenian control. In the late-Classical and Hellenistic periods they were controlled by the Macedonians and the Ptolemies, then by Rhodes, and finally the Romans.

From the Archaic period, or possibly earlier, the important sanctuary of Apollo on Delos drew people and wealth into the Cyclades. In Hellenistic and Roman times the island also became an important commercial centre, further stimulating activity in the area.

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CYNICS

The epithet "Cynic" ("doglike") was first applied to Diogenes of Sinope (?403–?321 BC), as a comment on the shamelessness with which he engaged in acts that were abhorred by other Greeks. Diogenes pursued a life of unqualified self-sufficiency, with only a barrel for warmth and a club for protection, styling himself a cosmopolitan or "citizen of the world". Arguing that actions which are based on natural impulses can never be unnatural, he defended even cannibalism and incest, and practised sexual intercourse in public. Freedom of action and freedom of speech were his watchwords, and he believed that he had found a way to make these common to everyone, not merely to the holders of civic privilege. It is said that when Alexander the Great, admiring his fortitude, asked if he could do anything for Diogenes, the latter asked him simply to "stand out of my way, because you are blocking the sun". Plato too was a victim of his calculated insolence, and the lost *Republic* attributed to him was evidently a riposte to Plato's dialogue of that title. For all that, Diogenes was regarded by many ancient writers not as a pure innovator, but as a "Socrates gone mad". The bridge between the ascetic of the 5th century and the fanatic of the 4th was Socrates' pupil Antisthenes (*fl.*400 BC), who held up self-denial as the chief principle of the philosophic life. Though never called a Cynic in his lifetime, he was regarded by some later commentators as the true founder of the school.

Most notable of Diogenes' early followers was Crates of Thebes (*c.*368–288 BC), who differed from other Cynics in his willingness to curtail his freedom by marriage; he and his wife Hipparchia are reported nonetheless to have shared Diogenes' indifference to prevailing sexual customs. Crates was for a time the teacher of Zeno, who is usually regarded as the founder of the Stoics. While the Stoics could not condone the licentiousness of Diogenes and Crates, there were some, like the slave Epictetus (*fl.*AD 100), who represented the better kind of Cynic as an imitator of Heracles and a model of virtuous living. Epictetus is one of many moralists who adopted the homely and trenchant style of the Cynic diatribe. This form was devised to bring philosophy to the masses by Bion of Borysthenes, who taught around 315 BC in Athens, and does not seem to have adhered uniquely to any sect. In his ethics, which was the whole of his philosophy, he reduced all goods to pleasure and all knowledge to sense-perception in the manner of another Socratic school, the Cyrenaics; while he looked back to a golden age of virtuous frugality in which each man was his own governor, he did not dispute the present rights of kings. The diatribe was adapted to new purposes in the pseudo-Platonic *Clitophon*, the *Hermetica* (Treatise 7), and above all in the polished works of the orator Dio of Prusa (Dio Chryosostom, 1st century AD),

who composed fictitious speeches for Diogenes and Socrates, but reserved his most obsequious and eloquent precepts for the emperor Trajan.

Another form which the Cynics bequeathed to literature is the medley of prose and poetry known as Menippean satire, named after its originator Menippus of Gadara (3rd century BC). Its most prolific exponent was probably Oenomaus, a Hellenized Jew of Gadara (*fl.* AD 120), whose works, like those of his fellow townsman, have not survived in any quantity. Menippus, however, figures frequently in the dialogues of the 2nd-century satirist Lucian. Famous for his ridicule of philosophers, society, and the gods, Lucian repudiates the more disgusting habits of the Cynics while expressing admiration for their ideals. Nevertheless, when others praised the sacrifice of Proteus Peregrinus, who threw himself on a pyre of his own construction at the Olympic Games of AD 169, Lucian denied that he could be called a second Heracles or even a genuine Cynic; he undertook to demonstrate instead that he was a renegade from the Church.

Though Lucian need not be believed, the hypothesis that Jesus was a Cynic has been entertained by a number of recent scholars, especially those who hold that the common source of Luke and Matthew ("Q") is the most authentic record of his teaching, Evidence is found in the aphoristic sayings of Jesus (reminiscent of Diogenes and Lucian's teacher Demonax), and the poverty of his disciples, who carried only a staff and a wallet in their mission to the Galilaean cities. It must, however, be emphasized that Cynics worked no miracles, did not live in communities, did not commend humility, and (whatever they thought of kings) never promised anyone a kingdom. The manner of Jesus is evidently different from that of Paul, yet it has been maintained that the latter was indebted to the diatribe as a model for his letters. The arguments for this position, while copious and occasionally impressive, are always vitiated by the difficulty of determining what ought to count as a specimen of the form.

Popular opinion in antiquity, noting that Christians held aloof from sacrifice and occasionally from marriage, appears to have equated them with Cynics and to have suspected them of similar or worse atrocities. Perhaps it was the desire to maintain a distance that led Justin Martyr into his fatal feud with the Cynic Crescens; yet Tatian's pupil Justin has been suspected of adopting Cynic tenets when he founded a community of "encratites", who eschewed both meat and sexual intercourse. In fact, though some later Cynics may have practised vegetarianism, the dietetic axiom of Diogenes and Menippus was that nothing is forbidden; and when Cynics avoided marriage, it was only because they wished to maintain the right to promiscuity. When Christian writers speak of Peregrinus as a paradigm of fortitude, it is not because they regard him as a Christian; and even if the dirtiness and illiteracy of Christian monks reminded pagan observers of the Cynics, their cenobitic lifestyle and the worship of God were practices which that antisocial movement could not share. It was the emperor Julian "the Apostate" who proposed the loftiest interpretation of Cynicism, arguing that the vices of Diogenes concealed a profound critique of human laws (*Orations*, 6–7). The Church itself did little to foster the sect, which disappeared in the 6th century AD. As its legacy to Greek culture it left the adjective "cosmopolitan" (adopted by the Stoics and applied to Abraham by Philo, the Jewish precursor of Christian allegory), and the works of Dio and Lucian, the latter of whom can still be read for amusement, as well as for the elegance of his style.

MARK EDWARDS

Biography

Cynics were followers of Diogenes of Sinope (?403–?321 BC) who was called *kyon* ("dog") for his rejection of social conventions, though some regarded Antisthenes (*fl.*400 BC) as the true founder of the school. Diogenes' most notable successor was Crates of Thebes. The sect survived until the 6th century AD.

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CYPRUS

The island of Cyprus is the third largest in the Mediterranean and lies in its northeastern corner, just 70 km from the Turkish coast to the north and 103 km from Syria to the cast. The nearest Greek island is Castellorizo, 270 km to the west, followed by Rhodes at 386 km to the west. Cyprus itself has a maximum length from east to west of 222 km, and a maximum width of 95 km. Geographically, it is dominated by the igneous Troodos mountain range in the centre of the island, rising to a height of 1951 m at the pineclad Mount Olympus, and by the long Kyrenia (or Pentadaktylos) range stretching along the north coast. Between them and extending to the east coast is the fertile Mesaoria plain. The west and northwest areas of the island are mountainous and often rugged; the south and east coasts depend on the rivers coming down from the Troodos mountains; the coastal plains in the north are fertile and well watered. The climate is semi-arid, and throughout its history human settlement has been heavily influenced by the need for water.

The first contacts with the Aegean world date from the Middle Bronze Age (*c.*2000–1600 BC), with a series of vases imported from Crete, mostly found in tombs along the north coast. The first large-scale contacts came during the Late Bronze Age (*c.*1600–1050 BC). During much of this period Cyprus had a complex urban civilization based on agriculture and copper production, with extensive trade links throughout the eastern Mediterranean. Important cities such as Enkomi on the east coast and Hala Sultan Tekke and Citium on the south coast near Larnaca clearly controlled large parts of the island both economically and politically, and one or more of them seems to have been the "Alashiya" mentioned in Near Eastern texts. The Cypro-Minoan script of this period, so-called because of its apparent similarities to Linear A on Crete, was probably used for bureaucratic purposes in large administrative buildings in the main cities. Although it has not been deciphered, it is clearly not Greek.

During the 14th century BC there was a great increase in the amount of Aegean pottery coming to Cyprus, mostly from Mycenae, and by the 13th century BC Mycenaean-style pottery was being manufactured on Cyprus. Pottery alone is insufficient evidence for the arrival of a Greek-speaking population on the island, but it is abundantly clear that by the Iron Age most Cypriots were speaking a dialect of Greek. The most plausible occasion for this demographic change is in the upheavals of the 13th and 12th centuries BC, when the "Sea Peoples", migrants and refugees from the west, were travelling, raiding, and settling across the eastern Mediterranean. The first known Greek inscription in Cyprus was found in an 11th century BC tomb in Palaipaphos in the west, a bronze spit with the name "Opheltes". Although clearly a Greek name, and using a grammatical form characteristic of the Arcadian dialect of Greek, this is written in the Cypriot syllabary, a development of the Cypro-Minoan script adapted for the use of the Cypriot dialect of Greek.

The earlier part of the Iron Age (*c.*1050–475 BC) seems to have been characterized by a low population and simple social structure. In the 8th century BC the characteristic city kingdoms began to develop, with local elites maintaining their power using elaborate ceremonial and luxury goods imported from the east. During this period there is an increasing number of inscriptions in Greek, written in the Cypriot syllabic script. This culminated in the 6th century BC, when a significant number of people were literate enough to write names on tombstones or dedications at sanctuaries. At the same time there was a considerable increase in imported pottery from Greece, particularly from east Greece and Athens, and Greek styles of sculpture had a strong influence on local Cypriot traditions, as seen in the many dedications in rural and urban sanctuaries.

From the beginning of the 5th century BC Cyprus appears regularly in the Greek written sources. We have an account in the pages of Herodotus about the participation of most Cypriot cities in the Ionian Revolt against the Persians in 499 BC, though they were retaken by the Persians in the following year. In political terms the 5th and 4th centuries BC were largely taken up with struggles against the Persians. The Athenian general Cimon led an expedition to Cyprus in 450 BC, but he died the next year, and his forces, after failing to take Salamis, returned home. A local player who acquired major influence in these power games was Evagoras I, king of Salamis from 411 to 374/73 BC, whose reign was vividly though uncritically described by his eulogist, the Athenian orator Isocrates. Resolutely pro-Athenian, he used his political and diplomatic skills to resist the Persians, increase his own power over the other city kingdoms of Cyprus, and disseminate Athenian art and culture. It was during his reign that the Greek alphabet began to displace the ancient Cypriot syllabary.

When Alexander the Great laid siege to Tyre in 332 BC, he was aided by 120 Cypriot ships, and although he never actually came to Cyprus, he made it clear that he was the island's master by issuing coins in his own name. At his death in 323 BC Cyprus, like most of his empire, was fought over by his successors, particularly Ptolemy and Antigonus. The city kingdoms aligned themselves on each side of the dispute; when Ptolemy sent an expedition there in 312 BC, the cities that had opposed him were punished and, in the case of Marion, destroyed. From this time until the Roman annexation in 58 BC, apart from one brief interlude, Cyprus was part of the Hellenistic empire of the Ptolemies of Egypt, sharing in the common Greek civilization and culture of the eastern Mediterranean.

Cyprus was annexed by the Romans in 58 BC, ostensibly because of the island's support of pirates. After being restored to Cleopatra of Egypt, it was taken by the future emperor Augustus in 31 BC, and transferred to the Senate in 22 BC. Apart from the Jewish insurrection in AD 116 and several earthquakes, this was a peaceful period in the island's history. The cities of the island boasted the usual trappings of the Roman provinces of the Hellenized east: bath houses, theatres, gymnasiums, temples, villas, honorific statues, inscriptions in Greek, and also local elites who benefited greatly from their role in the Roman administration of the province. In the countryside there was a considerable population, which supported itself through agriculture and produced wine, olive oil, flax, timber, and copper in sufficient quantities for export. Most famous of the works of art of the Roman period are the mosaics from villas in Paphos and Curium, which depict a wide variety of scenes from Greek mythology.

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CYRENAICA

Region of north Africa

Cyrenaica forms the eastern territory of modern Libya. There are two distinct areas of occupation – the uplands and the fertile coastal plain. The account of the Greek colonization of Cyrenaica is provided by Herodotus (4. 150–59). The Delphic oracle directed Grinnos, the king of the island of Thera (modern Santorini), to go and found a city in Libya. This advice was ignored, and after a seven-year drought on the island, the oracle reminded the islanders that they should send a colony to Libya. The Therans sent to Crete for advice about Libya, and as a result they came to the island of Platea (the site of which is disputed) and left a Cretan fisherman there while they returned to Thera. The Therans then sent out a group of colonists selected by lot under the leadership of Battos, and a settlement was established on the island. After further intervention from

the oracle, a mainland settlement was established opposite the island of Aziris in eastern Cyrenaica. The site itself has been plausibly identified by the presence of Protocorinthian, East Greek, Cretan, and Greek pottery at the mouth of the Wadi el-Chalig. Eventually a settlement was established at Cyrene, and the numbers of Greek settlers in Cyrcnaica were supplemented after a further oracle from Delphi.

Details about the establishment of Cyrene are recorded on a 4th-century BC inscription which gave the people of Thera honorary citizenship in recognition of the earlier links with the city. A section within the decree purports to be a record of the original decision of the Therans. There were apparently conditions about staying in Libya for five years before being allowed to return to Thera if the colony did not succeed.

After the foundation of the Greek colonies during the 7th century BC, Cyrenaica came into increasing contact with its eastern neighbour Egypt. The Egyptian pharaoh Apries marched against Cyrene in 570, but this attacked was foiled and led to the fall of Apries and his succession by Amasis as pharaoh. Amasis, who according to Herodotus established the Greek trading establishment of Naucratis in the Nile delta, fostered links with the Greek world, and in order to establish a link with Cyrene, married Ladice, a member of one of Cyrene's leading families. In 525 Egypt was annexed by Persia, and Cyrenaica soon became part of its larger empire following a Persian invasion which reached as far as Euesperides. Cyrene regained some independence during the 5th century BC.

Cyrenaica supported Alexander the Great and subsequently became part of the Ptolemaic kingdom. This period is reflected in the way that some Cyrenaican cities were renamed in honour of the Ptolemies: Euesperides became Berenice, Taucheira became Arsinoë, and Barca became Ptolemais. Evidence from Apollonia shows that the walls of Apollonia were constructed in the late 2nd to early 1st century BC according to an Egyptian unit of measurement. Cyrenaica was finally bequeathed to Rome on the death of Ptolemy Apion in 96 BC.

As part of the Roman world, Cyrenaica was initially a joint province linked with Crete. The status of the Greek community is reflected in the edicts of Augustus, dating to 7/6 BC and 4 BC, which demonstrate the perceived tension between Greeks and Romans in the province. It is not clear how far the Greek constitutions of the Cyrenaican cities continued into the Roman period. One decree from Tocra, dating to the 1st century BC, seems to suggest that the citizen body had diminished, though a number of villages across Cyrenaica probably retained their Greek identity into the imperial period. Through the 1st century it is clear from a number of inscriptions that Jews were being allowed to take part in Cyrenaican civic life. The rivalry between the two parts of the population led to a revolt in Cyrenaica and Egypt under the Roman emperor Trajan when, as Eusebius (*Ecclesiastical History*, 4. 2) described it, the Jewish population "broke into factious strife against their fellow Greek citizens".

Cyrenaica's identification in the Greek world was re-emphasized by the inclusion of Cyrene in the Panhellenion established in Athens by the emperor Hadrian; indeed one citizen of Cyrene served as an official of the Panhellenion in 157. Hadrian's patronage of Cyrenaican cities in the aftermath of the destruction of the Jewish revolt placed an emphasis on Cyrene's origins in the Greek world and the colonists from Thera.

Cyrene had a number of major sanctuaries including temples of Apollo and of Zeus Ammon, the latter a cult linked to the famous Egyptian oracle in the Western Desert. Both seem to have been constructed in the 6th century BC. Outside the city was a major sanctuary of Demeter. Analysis of the bones from the sanctuary shows that pigs were a favoured sacrifice, as might be expected in a sanctuary of Demeter. Archaic sculpture from the city included *kouroi* and *korai* of a type found elsewhere in the Greek world. Cyrene itself issued silver coinage, probably from the late 6th century BC onwards.

Barce, on the west side of the Cyrenaican upland, was next to be established, apparently during the reign of Arcesilas II, perhaps in the 560s. This was followed by expansion in the coastal areas, with the creation of Apollonia (later renamed Ptolemais as the harbour for Cyrene, and the city of Euesperides (later replaced by the Hellenistic city of Berenice, and now the modern Benghazi) in the west. Excavations at Euesperides have revealed a carefully planned city; the earliest grid and settlement can probably be dated to at least the middle of the 6th century BC, though some deep excavations on the Sidi Abeid indicate an earlier settlement is likely. A further settlement was located on the coast at Taucheira where part of the sanctuary of Demeter and Kore has been excavated. Both Apollonia and Taucheira are recorded as being foundations of Cyrene, though Herodotus (4. 171) records that the latter was a polis of Barce.

Cyrenaica was well known for its agricultural produce. For example, probably during the 320s BC, Cyrene sent grain to some 41 Greek cities in response to a severe food shortage; Athens alone received the equivalent of 6000 tonnes, and the total gift was around 50,000 tonnes. Cyrene's prominence in the second half of the 4th century BC is perhaps also reflected in the construction of a Doric treasury at Delphi, probably in the 330s. Cyrenaica was also the source for silphium which was used for medicinal purposes among other things. The plant was used as an emblem on the coins issued by Cyrene. Members of the Cyrenaica elite enjoyed the benefits of horse rearing; a number of Pindar's odes (Pythian 4, 5, and 9) celebrate victories by Arcesilas IV and Telesicrates in the Pythian Games.

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CYRENE

City in north Africa

Cyrene was the most important of the Greek colonies founded in north Africa during the 7th century BC and later. The region (to which Cyrene gave its name, Cyrenaica) was reasonably well watered and therefore fertile, but had the Sahara to the south, and was separated from Egypt by the Western Desert, with further difficult country to the west isolating it from Tripolitania (which in antiquity was a region of Phoenician and Carthaginian settlement). Cyrenaica was thus in effect a self-contained region, eventually divided among a number of Greek foundations. Contacts with the Aegean world preceded the period of colonization, and must already have existed in the Bronze Age. The Minoan harbour town of Kommos, on the south coast of Crete, with its great built shipsheds would have served for maritime links with the coastal regions of Africa immediately to the south. Even in the 1st millennium BC the coastal waters of Cyrenaica were visited by Greeks (the area produces excellent sponges) before Greek settlement took place.

Cyrene is important in the history of Greek colonization not only for the detailed account of the circumstances of its foundation in Herodotus (4. 145–50) but also for the inscription, found in Cyrene itself, which gives the text (perhaps a later edited version) of an oath supposedly sworn by the founders. The colony was sent out, around 630 BC, by the Aegean island of Tiera (modern Santorini) after consultation of the oracle at Delphi. The reason was overpopulation, and the Therans had to order the colonists to stay for at least five years after the first attempt at settlement in Africa proved unsucessful. They eventually settled on a small offshore island, then on the mainland, eventually moving inland to the site of Cyrene itself. Most Greek colonial foundations in overseas, non-Greek districts remained adjacent to the coast and safety. Cyrene was unusual in being situated well inland, 25 km away from the sea, on the edge of the inland plateau that stretches southwards to the Sahara. It is not clear how this was achieved in the presence of an indigenous population; either they were too few to resist, or, for some reason, they welcomed the Greek settlers. The latter is more likely, since the settlers themselves would not have been that numerous, and a non-Greek stratum persisted in Cyrene throughout its history.

The settlement was led by a man called Battos. He and his descendants ruled Cyrene as kings until their overthrow in the 5th century BC. The city prospered considerably. It produced corn on a large scale (at one critical moment in the late 4th century BC, when there was a failure of the harvest in mainland Greece and Egypt withheld supplies of corn in order to boost the price, Cyrene was able to provide an alternative source of supply, an act recorded with gratitude in Greece itself). Equally important was the product of a plant called silphium, which seems to have been a form of drug much prized in Greece, and which was so important to Cyrene that it is represented on its coins. There is an important Greek vase, a cup made in Laconia, which depicts King Arcesilas II of Cyrene supervising the loading of bales (of silphium? or more prosaically wool, another export) into the hold of a ship. The choice of subject suggests that Sparta had close contacts and hence, a very real knowledge of Cyrene. Indeed, so much Laconian pottery has been found in Cyrenaica that it was originally thought to be of local origin.

Cyrene grew up round an abundant spring of the nymph Cyrana, who gave her name to the city. Below the spring was the central sanctuary of Apollo which, though later rebuilt, contained an important example of an early Doric temple. The main part of the town lay above and to the south of the temple. A road led up to the agora, which included the tomb of the founder Battos (though the actual structure of the tomb is 4th-century BC in date). Beyond this was the greatest of the city's temples, an early 5th-century dedication to Zeus. The city itself, like most colonial foundations, was laid out to a grid plan.

Cyrene remained largely aloof from the mainstream history of Greece: its retention of a monarchy until well into the 5th century is in some respects an indication of this. With the conquest of Egypt by the Persian king Cambyses, Cyrene became attached (loosely, again because of its geographical position) to the Persian empire. Similarly, after Alexander the Great had added Egypt to the area of his rule, the Cyrenaicans deemed it prudent to make their submission to him. With the break-up of Alexander's empire Cyrene was once more independent, but eventually became part of the kingdom of the Ptolemies based on Egypt and Alexandria. Ptolemy III married a Cyrenaican, Berenice, as his queen, and other prominent Cyrenaicans (such as the poet Callimachus) were attracted to the court at Alexandria. With the decline of the Ptolemies, Cyrene became a separate kingdom, ruled by a branch of the Ptolemaic royal family. The last of these, Ptolemy Apion, bequeathed his kingdom to the Romans on his death in 96 BC.

Under the Ptolemies a substantial Jewish population established itself at Cyrene, as at Alexandria. In the 2nd century AD the Jews of Cyrene joined in the widespread Jewish rebellion against the Romans, and Cyrene was badly damaged in the resulting turmoil. Subsequently the city revived, but the temple of Zeus, though reroofed, did not have its fallen colonnade re-erected. Cyrene continued to flourish in the late empire. There are (as in the other Cyrenaican cities) important early Christian churches there, but the main centre seems to have shifted to the

harbour town of Apollonia. Cyrene itself gradually withered, and with the Arab conquest ceased to be a place of any significance.

Paradoxically, this withering away resulted in a remarkable degree of preservation of its ancient remains. With the Italian occupation of Cyrenaica much excavation was carried out and was continued after the war by the Libyans under their Director of Antiquities, Richard Goodchild. Much was restored. The great gymnasium, turned by the Romans into a Caesareum, which had fallen in an earthquake, was re-erected. Hut the most poignant survival (now less well preserved) was the surrounding environment with its ancient roads, lined with monumental cemeteries and running out into the hinterland through a field system which still retained its ancient boundaries.

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D

DANCE

From the evidence of both literature and art, it is clear that in ancient Greece dancing – the art traditionally dedicated to Terpsichore, one of the Muses – was widespread and important, whether as part of private entertainment or public ceremonial. Attendance at dancing classes in the tribal divisions of society was an obligatory part of the education of young Athenians. Spontaneous or formalized dancing in groups, usually of the same sex (since many ritual occasions demanded segregation of the sexes), and solo dancing of an expressive or imitative nature, with attention to movements of the hands (*cheironamia*), are both well attested; but, surprisingly to us, dancing together in pairs of opposite sexes, as in western ballroom dancing, seems to have been quite unusual.

In the description of the scenes on the shield of Achilles in *Iliad* 18, however, youths and maidens dance in adjoining lines, accompanied by two tumbling acrobats, and the dance floor is compared to the one made by Daedalus for Ariadne at Knossos. Crete was in fact thought to have made the major contribution to the development of dance, going back to the very birth of Zeus, when the leaping, foot-stamping, and weapon-clashing of the Curetes, fertility demons, concealed the child from the cannibalistic intention of his father Cronus. A late fragmentary hymn describing the occasion, with the theme of leaping to promote fertility, was found in excavations at Palaikastro. The lively dance called *hyporchema* was also believed to have been a Cretan invention, and was occasionally introduced into the choreography of Classical Attic tragedy. Plutarch (*Theseus*, 21) also describes a dance called *geranos* (''crane''), said to have been danced by Theseus and other youths on their escape from the labyrinth of Minos, and the agility in battle of a minor warrior of the *Iliad*, the Cretan Meriones, was attributed to his dancing skill.

The association of dancing with warfare – called ''fierce Ares' dance'' in *Iliad*, 7. 241 – and the manipulation of weapons are highlighted in the so-called Pyrrhic dance, also said to have derived from a divine birth, this time not of Zeus, but from his head, when Pallas Athena leapt out vigorously, fully armed. The motif of the dramatic emergence of a warrior continued to be a feature of the Pyrrhic, which was performed particularly at the Panathenaic festival by youths, naked but armed with helmet, shield, and spear, like the goddess. Socrates (Athenaeus, 628f.) is said to have declared that ''those best at dancing are also best at war'', and Plato (*Laws*, 815) described how this dance imitated defensive and offensive postures of combat. The Pyrrhic was alternatively attributed to Achilles' son Neoptolemus (also called Pyrrhus), whose desperate self-defence against Delphians is likened to the dance in a memorable passage of Euripides' *Andromache* (1129ff.). Aristophanes (*Clouds*, 988–89) complained that the effete younger generation in Athens could not adequately perform the shield-twisting movement in honour of Athena, and it seems that a sophisticated stereotype in the dance might replace the actual shield, with a folded cloak covering the left arm to mimic the true armed pose. The Pyrrhic is the dance most often represented in art, both in sculpture and in vase painting. A pose showing sideways or backward turning of the head is another motif, sometimes associated with another exploit of Athena, when she instructed Perseus how to avoid the fatal glare of the Gorgon in their famous combat, or even herself performed the slaying of the monster. Armed dancers were popular elsewhere in Greece, especially Sparta with its prominent tradition of military training, and an elaborate account by Xenophon (*Anabasis*, 6) gives a detailed description of these in entertainments provided by different Greek mercenaries during Cyrus' famous march through Asia Minor. Included are a Persian dance featuring crouching and jumping, and one named *karpaia*, in which a farmer takes arms to protect his property against rustlers. The Pyrrhic is here danced as a solo by a young girl.

In *Laws* 815 Plato declares that there are two desirable types of dance, the warlike (as described above) and the peaceful, among which the stately and graceful *emmeleia* is singled out. *Iliad* 16. 183 refers to maidens dancing in the choir of Artemis, and a feature of Attic ritual was the chorus of young girls dressed as bears dancing in her honour in the township of Brauron. Dances imitative of animals and birds were widespread throughout Greece. When Odysseus is entertained at the Phaeacian court (*Odyssey*, 8. 256) he watches a pair of local youths dance, where jumping and throwing balls to each other are featured. The maiden songs (*partheneia*) with choral dancing of Alcman were notable, often celebrated at a night festival (*pannychis*). *Paeans*,

mostly associated with Apollo, were composed by poets like Pindar, along with processionals (*prosodia*), marriage songs (hymeneals, epithalamia), dirges (*threnoi*), and the victory odes (*epinicia*) for which he is most famous. Ecstatic dancing was a feature of the cult of Dionysus and his crazed maenads (most memorably featured in Euripides' *Bacchae*). Other deities of oriental origin, such as Cybele, Attis, Sabazius, and their acolytes the Corybants, were also worshipped with the sort of dancing to musical accompaniment performed by ecstatic votaries which aroused apprehension about the disruption of civic order in some communities.

The dance particularly honouring Dionysus was the dithyramb. Whether Aristotle was right to see Attic tragedy (certainly associated with that god, and performed in his theatre) as developing from the dithyramb remains controversial, and the latter continued to be danced independently in a circular group of 50 in inter-tribal competitions, while the tragic chorus was danced in more formal rectangular patterns of 12 or 15 performers. Having entered by the *parodos*, they performed in the dancing place (orchestra) and remained on stage during the acted portions which were punctuated by their stationary songs (*stasima*), before marching out, usually to an anapaestic rhythm, in the *exodos*. Sophocles was himself said to have been an elegant dancer, and to have written a handbook *On the Chorus*. The group of three tragedies (trilogy) was followed by a satyr play, where the chorus, sometimes in the guise of attendants of Pan or Silenus, indulged in grotesque parodies of the statelier tragic dances, and we hear too of frankly indecent dances like the *sikinnis* and *kordax*. The chorus in Aristophanes' comedies performed the energetic dances appropriate to revelry (*komos*). Dancing was a popular feature of symposia in Athens and elsewhere, and Xenophon's *Symposium* in particular describes a typical party. Courtesans (hetaerae) were frequently called upon for these entertainments, with the music of the double *aulos* and castanets.

When Greek culture began to penetrate southern Italy, the so-called *phlyakes* plays, of similar hilarious type, became popular, and the dances that accompanied them are represented on vases. It was in the Roman era that the craze for virtuoso dancing by Greek *pantomimi*, interpreting different mythical roles, not only spread in theatrical performance, but attracted the favour of the imperial courts. Nero's own patronage of dancing, and his taking the stage himself, were notorious. Moralists and satirists such as Cicero, Seneca, and Juvenal may have expressed their disgust at the lewdness of much professional dancing, and in the Christian era the suppression of such exhibitions was sought. Nevertheless in the 6th century the notorious dancer Theodora became Roman empress through her marriage to Justinian.

In the pantomime the same dancer acted out a series of roles, representing either sex, and changing masks accordingly, with the mimicry of a dumbshow in steps, postures, and gestures. Although in the Byzantine period stage performance declined, pagan festivals and carnivals such as the Kalends and Brumalia survived and continued to be celebrated, while more decorous dances were performed at weddings and court ceremonials. In spite of theatrical censorship, low-class dances were still to be seen in taverns, accompanied by wind instruments and percussion.

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See also **Music; Theatre**

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DARK AGE 1200–700 BC

The term "Dark Age" is a relatively recent coinage of modern scholarship, applied to the period that intervenes between the collapse of the Mycenaean palaces around 1200 BC and the emergence of a new state form (the polis) in the course of the 8th century BC. Ancient writers seem to have been unaware of any major disjuncture between the heroic age and the historical period. Hesiod, writing around 700 BC, paints a gloomy picture of a gradual decline, symbolized by the successive "five ages" of gold, silver, bronze, heroes, and iron (*Works and Days*, 109–76). Conversely, Thucydides' conception of early Greek history (1. 1–18) is predicated on the notion of a steady evolutionary growth of resources and power; although the period immediately following the Trojan War is characterized by instability and migration (1. 12), there is no real sense of a cultural or economic "trough" that stands in stark contrast to conditions

before the Trojan expedition, nor again of a "renaissance" associated with the rise of the polis – in fact, most Greeks believed that poleis had existed from time immemorial.

Up to the 1870s, most scholars accepted – at least in principle – Thucydides' general schema of early Greek history, though many (George Grote in particular) believed that the lack of contemporary written evidence made it impossible to construct a properly historical narrative of Greece before 776 BC (the traditional date for the foundation of the Olympic Games). However, Heinrich Schliemann's excavations at Troy (1870–90), Mycenae (1876), and Tiryns (1884) made it clear for the first time that an earlier, civilized culture had flourished on the Greek mainland; it also soon became evident that the palaces associated with this "Mycenaean" civilization had experienced an abrupt end. Following Flinders Petrie's publication in 1890 of Mycenaean pottery in Egyptian contexts of the 18th and 19th Dynasties and his conclusion that the Mycenaean palaces had been destroyed around 1200 BC, it became evident that there was a gap of approximately five centuries between the collapse of the palaces and the first extant literature as represented by Hesiod and the lyric poets of the 7th century BC. The sheer paucity of evidence for this intervening period had already by the last decade of the 19th century led historians to term it a "Dark Age" or "the medieval epoch of Greece".

It is sometimes stated today that the Dark Age is simply a "subjective" perception in the mind of the modern historian, generated by the lack of any contemporary literary evidence, and that archaeological investigation is revealing the period to be anything but obscure in "objective" terms. In fact, if anything, the opposite is more correct. It is certainly true that direct and contemporary literary evidence is lacking for the period. The Linear B tablets, which offer precious testimony for economic, social, and military conditions in the Late Bronze Age, disappear with the destruction of the Mycenaean palaces as the bureaucratic necessity for scribal literacy evaporated; literacy – this time in alphabetic form – is not attested again in Greece proper until the middle of the 8th century BC (though a possible example of the Greek script of the early 8th century BC is claimed at Osteria dell'Osa to the east of Rome). Nor has Moses Finley's argument that the Homeric epics reflect the social conditions of the 10th and 9th centuries BC met with much scholarly consensus. Nevertheless, while recent decades of archaeological exploration have certainly served to illuminate our knowledge of the Dark Age and to trace certain low-level continuities throughout these centuries that should urge caution against too rigid a periodization, it is still the case that our increased understanding of this period ultimately confirms that settlement patterns, interactions between communities, religious behaviour, and artistic and technological traditions were indeed somewhat different from the situations that had existed earlier and were to exist subsequently.

The collapse of the Mycenaean palaces seems to have instigated certain population movements, revealed by the occupation of new areas such as eastern Attica, Lefkandi on Euboea, Emborio on Chios, Ialysus on Rhodes, Cyprus, and the north Aegean. Yet many of these sites were short-lived and by the first half of the 11th century BC the number of known settlements in Greece is less than half the 220 sites attested for the period 1200–1150 BC. This may indicate overall demographic decline but there is also the possibility that new sites were occupied on a more temporary or seasonal basis (thus potentially escaping archaeological retrieval) and it is often suggested that instability and insecurity were both the cause and effect of a shift from sedentary agricultural practices to a more pastoral lifestyle. From the 10th century BC the number of known sites begins to rise again but it is not until the 8th century BC that a sharp increase in site numbers and evident signs of urban nucleation signal a return to more settled conditions – a phenomenon that may have been triggered by, but would certainly help to foster, demographic growth.

The communities of this period were also far more isolated than had been the case earlier when the Mycenaean cultural koine had embraced much of the Mediterranean and the Near East littoral; one apparent indication of this new isolation is the increasing regionalization of pottery styles. Nevertheless, not all contacts were severed entirely: imported grave goods are still attested – albeit in smaller quantity – at sites in both central and southern Greece, while the diffusion of iron metallurgy should suggest some continued contact with the east – almost certainly with Cyprus as an intermediary. Crete in particular maintained links with Cyprus and possibly even Italy and Sicily. One of the most important "type-sites" for the period is Lefkandi on the island of Euboea where, from the 1960s onwards, excavations have brought to light part of the settlement (whose ancient name is unknown) and its cemeteries. The mid-11th-century BC tombs at Lefkandi contained artefacts from Cyprus and the Levant, though there followed a period of apparent isolation until the middle of the both century BC, when an imposing peripteral building, constructed from timber and mudbrick and erected over a "princely" burial, testifies to the emergence of a hierarchy within this newly prosperous (but still fairly small) community. Immediately afterwards the building was surrounded by a number of elite burials whose grave goods indicate renewed contacts with Athens, Thessaly, Macedonia, Cyprus, and the Near East. It is fair to say, however, that Lefkandi is very much the exception to the rule: at other Greek sites it is generally not until the 9th and 8th centuries BC that more distant links are resumed as a prelude to the colonization of the west.

While the appearance of many recognizably Greek divinities in the Linear B tablets points to some continuity in religious traditions, archaeological evidence that might suggest a continuity in ritual behaviour is more elusive. A few sites certainly attest a continuity of cultic enactment from the late Mycenaean period throughout the Dark Age (Kalapodi in Phocis, Kato Syme Viannou on Crete, and possibly the Polis Cave on Ithaca), and several sanctuaries were already functioning by the 10th century BC (Munychia, Brauron, and Mount Hymettus in Attica; Olympia and Kombothekra in Elis; Amyclae in Laconia; the Heraion on Samos; Tegea in Arcadia; and Isthmia in Corinthia), but there is little or no evidence for cultic activity much before the 8th century BC at some of the more famous sanctuaries of the historical period, such as Eleusis, Delos, and Delphi, and this is also the period that witnesses the earliest cultic buildings, even in sanctuaries that had been functioning for several centuries.

Finally, the period witnesses the disappearance of certain technological and artistic traditions such as ivory working, figured pictorial representations on pottery, and monumental stone architecture. It is the apparently seamless resumption of

these techniques from the 9th and 8th centuries BC onwards that has suggested to sonic scholars that the Dark Age is nothing other than a scholarly mirage, produced as a result of synchronizing the Mycenaean ceramic sequence with faulty Egyptian dates; it has been argued that a recalibration of the Egyptian sequence yields a destruction date for the Mycenaean palaces of 950 BC rather than 1200 BC, thus halving the five-century "gap" that troubled earlier scholars. The thesis has little to recommend it, though it provides a salutary reminder as to the fragility of pottery chronology in the ancient Mediterranean and Near East.

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See also **Political History to 490 BC**

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DEAD, CULT OF THE

Although Homer represents the dead in Hades as devoid of physical and mental power, and Hesiod credits the disembodied spirits of the golden race with being altruistically beneficent, the common Greek belief was that the behaviour of the dead was influenced by the conduct of the living. They behave beneficently when propitiated, but maleficently when neglected or spurned. Being capable of doing good or evil, they had to be gratified with pious attentions in order to induce them to do good. Accordingly, a ritually correct burial or cremation, costly-grave gifts, and periodical offerings of food and drink were vital elements in the tendance of the dead.

The history of the Greek cult of the dead is to some extent related to the prevalence of the two chief modes of disposal, namely cremation and inhumation, although they do not reflect different eschatalogical beliefs. Whatever the method of disposal, it was essential to cover the body with earth, and three handfuls were sufficient to fulfil the requirements for a ceremonial burial. Thus in Sophocles' *Antigone* (255–56) the heroine scatters a thin coating of dust over Polynices. This covering cut the dead off from the sight of the heavenly gods, to prevent them from being offended and their altars polluted (cf. Sophocles, *Ajax*, 589, *Antigone*, 1716f.). It was also an act of kindness to the departed, because they could not enter the underworld unless their mortal remains were buried (Homer, *Iliad*, 23. 71ff.). To grant burial to a dead person, be he friend or enemy, was therefore universally recognized as a pious act. However, burial was denied to executed criminals, traitors, and occasionally to suicides.

When the body had been bathed, it was dressed in clothes such as the deceased might have worn in life, and laid on a couch (*prothesis*). Laments were made by the relatives and others present, and moderation in this respect (as well as in the elaborateness of funeral pyres and the amount of grave goods buried or burned with the body) was recommended, and sometimes required by law. Finally, the body was carried to the place of burial or cremation accompanied by a crowd of mourners (*ekphora*). Only the *prothesis* and *ekphora* are depicted on geometric vases, but the Athenian white-ground lekythoi frequently depict tomb cults. In the case of cremation, the ashes were placed in a vessel whose shape, size, and material varied according to place, time, and circumstances. Coffins were normally used for burials, while elaborately carved sarcophagi became fashionable among the well-to-do in later times. It was customary to hold a funeral even in the absence of a body, and dummies may have been used occasionally. Family rituals for the dead were held at the tomb not only after the burial, but also at intervals thereafter.

Although Minoan and Mycenaean tombs show variations in size, elaboration, and the number and value of their grave offerings, we know little or nothing of their funerals. Homer describes elaborate funeral ceremonies, such as those in honour of Patroclus in *Iliad* 23. The funeral was followed by elaborate games in which every contestant received a prize of some sort. Some of these were the property of the dead person, and it has been suggested that the prizes may represent a compromise between burning all the dead man's goods with him and allowing them to he inherited. During the Archaic period the funeral became an occasion to display aristocratic wealth, power, and prestige, and laws were passed to limit extravagance.

Greek literature frequently refers to the need for burial rites and the insult to human dignity if they are omitted. Though the dead themselves had no power, they had access to infernal powers, notably Hades and Persephone. Accordingly, *katadesmoi* or folded lead plaques inscribed with curses bearing the name of the person to be "bound down" were occasionally placed in graves. The dead person's journey to the next world was effected by elaborate ritual conducted by relatives, primarily women. Priests were not allowed at funerals for fear of incurring pollution, and there was no "burial service" as such. No tomb cult was practised in early times, but in Classical Athens women paid regular visits to the grave. Offerings included cakes and libations, mainly of pure water. Aeschylus has dramatized such visits in the *Choephori* and the *Persians*, but with differences of time and place. It was considered so important at this time for the dead to receive the attention of the living that it constituted a reason for adopting an heir (Isaeus, 2. 36. 7, 30).

From Classical times we have descriptions of magnificent public funerals (complete with orations honouring the dead), especially those given at Athens to citizens killed in war

(Diodorus Siculus, 11. 33. 3; Thucydides, 2. 34). Their magnificence is matched by the sculptured gravestones of Classical Athens with their restrained expression of grief. The dead are often depicted performing some familiar act for the last time. The brief inscriptions usually record only the name and parentage, and sometimes the word ''farewell'' is added. Those who died unmarried at marriageable age received special sympathy, their pathos being underlined by a stone grave marker in the form of a *loutrophoros* or vase used in the nuptial bath. According to Plutarch (*Aristides*, 21), the heroic dead were so powerful that even in his own day (*c.*AD 46–*c.* 120) they received blood sacrifice. Those who visited a funeral underwent some defilement, so water from another house was provided on leaving for cleansing: see Hesiod's advice not to make love on returning from funerals. Cypress branches were fixed to the door to indicate a death within.

Sacrificial offerings were made to the dead from the time of the burial and at the grave. Solon expressly forbade sacrifice of oxen at the grave. Burial was followed by a funeral feast. The soul of the dead man was thought to be present, even to be the host. On the third and ninth days after the funeral, meals were given to the dead man at his grave; the ninth day ended the period of mourning (in Sparta the eleventh). On the fifth day of the month of Boedromion a general *genesia* (birthday) was held by the entire Athenian public for their dead relatives; we also hear of a feast called *nemesia* probably to avert their anger.

At Athens the chief festival was held at the close of the Dionysiac feast of the Anthesteria, in spring, of which it formed the concluding day. On this day the dead swarmed back to the world. Each family made offerings to their own dead. Hermes, on behalf of the dead, was offered cooked vegetables and seeds in pots (hence the name Chytrai). After the feast the souls were asked to leave.

We learn from Plato (*Republic*, 2. 365a) that during the 4th century BC there were many Greek manuals attributed to Orpheus, Musaeus, and other sages, full of mythology and formulas for initiations. They also contained instructions for calling up the dead for consultation, Hermes being the intermediary. Such formulas are also found in the magical papyri.

In spite of philosophical discussions on reincarnation and the transmigration of the soul, it is strange that such views have left hardly any trace on Greek tomb inscriptions: there are no prayers for a better life at the next birth or for a safe return to old haunts. The doctrines of the religious and philosophical teachers in this regard apparently had little influence on the life and thought of the common people.

Quite different was the case of the Christian teaching of a purgation of the dead, as borne out by Paul's discovery that at Corinth some Christians were undergoing a second baptism on behalf of dead relatives (1 Corinthians 15:29). Similarly, Byzantine Christians, believing in the power of the living to influence, through prayers and intercessions, the destiny of the souls of the departed, made lavish donations to churches and monasteries in order to guarantee the proper commemoration of their dead relatives.

Death was viewed by both Christians and Neoplatonists as a liberation from captivity. Nevertheless, both laid greater emphasis on the positive aspect of death as the beginning of a new life. Loud and excessive mourning over the dead was therefore criticized by theologians such as Basil the Great and John Chrysostom, while some radical monastic circles even objected to a special burial service.

Christianity transformed in a special way the rites of the funeral liturgy and certain representations of the hereafter that derived from pre-Christian customs and beliefs. Among the beliefs thus taken over and transformed by the Church Fathers were the soul's journey after death escorted by the *psychopompoi*, a role now ascribed to the angels; Charon's ferry, whose role is now taken by the Church – the ship of souls; the *ephodion* or sustenance for the journey, now provided by the Eucharist or ''Holy Viaticum''. This last concept is sometimes given a wider meaning to include faith, baptism, or the monastic life. Meanwhile, the traditional funeral meal conducted by relatives at the tomb of the deceased gave rise to the custom of distributing *kollyva* (small round cakes). This practice was unanimously opposed by the Western Church as a pagan superstition, but it survived in the Byzantine Church. The 3rd, 7th (or 9th), and 30th (or 40th) days after death were specially commemorated by the distribution of *kollyva* and the offering of liturgical prayers, which were thought to accompany the dead person on his or her journey, these dates being regarded as marking important stations on the soul's journey either to the final vision of, or banishment from, God. The dead were also commemorated on the anniversary of their death and on the Saturday before Meatfare Sunday.

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See also **Afterlife; Burial Practices; Death**

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DEATH

In ancient Greece death was an everyday occurrence, being prevalent among people of all age groups whether as a result of disease, accident, childbirth, or warfare. Furthermore, it was a far more immediate aspect of the life of the community than is the case in many modern societies. Since there were no hospitals, most deaths occurred either at home or on the battlefield. If death occurred at home, it was the duty of the relatives of the deceased to prepare the body for burial, transport it to the burial ground, and lay it in the earth. Since funerals provided an opportunity for the display of wealth and prestige, many communities, including that of Athens, introduced legislation designed to limit their scale and magnificence.

The most striking evidence of burial practices in Bronze Age Greece is provided by the so-called shaft graves at Mycenae. These graves, dated to the 16th century BC, are cut into the living rock to a depth of several metres. They have yielded some of the richest finds ever discovered on the mainland. In the 15th century a different style of burial developed, in the form of beehive tombs, so named because of their domed appearance. Recent excavations at Lefkandi on Euboea dating to the 10th century BC have yielded evidence of the ritual slaughter of a young woman and four horses on behalf of a warrior, presumably so that they could accompany the warrior to the underworld.

In Homer death is characteristically described in terms of the departure of the psyche "lamenting its fate", from either the mouth or a gaping wound. However, it is worth noting that, of the 240 deaths in the *Iliad*, only four are described in this way. The psyche is, moreover, a biologically indistinct entity which is rarely referred to except at the moment of death. No other Greek writer gives any explanation as to why the human organism dies, except for Aristotle, who claimed that it was caused by loss of vital heat. Mythologically the idea of a painless death was epitomized by the gentle arrows of silver-bowed Apollo.

Because a corpse was believed to be highly polluting, relatives were required to take elaborate precautions to prevent the pollution from seeping out of the house and into the community. Solon legislated that only close family members and women over the age of 60 were permitted to enter the house of the dead and take part in the funeral. In order to contain the pollution, a bowl of water was placed outside the house so that visitors could purify themselves, and flasks containing olive oil were placed around the couch on which the dead was laid out. In addition, a cypress branch was hung on the door to warn passers-by of the presence of contagion within.

Death was handled almost exclusively by the relatives of the deceased, who were under a sacred obligation to ease transition "from here to there", as the Greeks phrased it. Though there are occasional references to undertakers in ancient sources, their duties were confined to transporting the corpse from the house to the grave and preparing the ground for burial. It is a reasonable assumption that the Greeks would have regarded the idea of handing over the corpse of a dead relative to strangers as both incomprehensible and inexcusable. This had much to do with the belief that in the period between death and burial the deceased was in a dangerous liminal condition and needed help from his or her relatives in order to secure entry to Hades.

Greek culture not only tolerated but expected extravagant manifestations of grief. Both men and women tore out their hair, rent their garments, beat and lacerated their breasts, and rolled on the ground in the dust. In part this behaviour was prompted by the belief that the deceased took pleasure in witnessing the exaggerated displays of grief that their death occasioned.

As soon as death occurred, the corpse would be prepared for the *prothesis*, or "laying out", which took place in the house where the deceased lived. First, the eyes and mouth were closed. Female relatives washed the corpse, anointed it with olive oil, clothed it, and then wrapped it in a winding sheet. Finally they laid it out on a couch with the head on a pillow and the feet facing the door. Visitors then came to view the body and dirges were sung in its presence. On the day of the funeral the bereaved accompanied the corpse to the burial site. If the family could afford it, it would be placed in a simple wooden coffin, though owing to the scarcity of wood it might only be covered with a few branches. The corpse was either borne by pall-bearers or transported in a cart.

Little is known about what took place at the burial service itself, other than the fact that ritualized laments were delivered. Though both inhumation and cremation were practised with varying degrees of popularity in antiquity, cremation was generally regarded as more prestigious, in part because this is how the bodies of Homeric heroes were disposed of. (The most detailed description of a cremation burial is that of Patroclus in Homer's *Iliad*, book 23.) After cremation the ashes were placed in an urn, which was then buried. Once the grave had been filled in, a grave marker was erected. The mourners then returned to the house of the deceased for a commemorative meal. Lastly, the house was ritually purified. Inscriptions from various parts of the Greek world indicate that it was customary to debar relatives from participating in the life of the community for several weeks.

The Greeks did not have cemeteries as such. Those who dwelt in rural areas buried their dead on their estates, whereas city dwellers buried them beside major roads. From around 500 BC the practice of burial within the city of Athens abruptly ceased, perhaps due to a law introduced by the politician Cleisthenes. The ban was no doubt connected primarily with the fear of pollution, but it may also have been due in part to the need to conserve as much residential space as possible. The busiest roads henceforth provided the most popular burial spots for wealthy families, as is indicated by the large number of tombs outside the Dipylon and Sacred Gates on the west side of the city in the neighbourhood known as the Ceramicus, or potters' quarter. In the final decades of the 5th century BC family plots became extremely popular among the wealthy. These were large rectangular spaces walled along the front and at the sides, access being gained from the rear. The popularity of this style of burial may be connected with the belief that members of the family could be reunited in the hereafter if they were buried together.

In Classical Athens concern for the well-being of the dead did not cease after burial. On the contrary, relatives continued to maintain a close attachment to the deceased long after death had occurred, since their welfare in Hades was believed to be dependent upon the attention they received from the living. The anniversary of the day of death was especially important. The dead were believed either to dwell close to the grave or at least to be capable of visiting it when summoned. For this

reason a variety of gifts were deposited on the steps of the tomb, including jars of olive oil, myrtle branches, wreaths, cakes, and wine. In addition, the gravestone was anointed with olive oil and coloured sashes were wound around it. In Classical Athens the care of the dead was considered to be so important that it constituted a reason for adopting an heir.

Festivals in honour of the dead were major features of the sacred calendar. One such was the second day of the Anthesteria festival, which was equivalent to All Souls' Day, since the dead were thought to leave Hades and wander abroad. Most spectacular of all was the annual ceremony in honour of the war dead, which took place in early winter at the end of the campaigning season. An account of the ceremony conducted on behalf of those who died in the first year of the Peloponnesian War was provided by Thucydides (2. 34ff.), who also included the speech delivered by Pericles on that occasion. Only the most courageous war dead were accorded the privilege of being interred on the field of battle. They included the 192 Athenians who fell at the battle of Marathon, around whom a cult was established. The most revered dead were heroes such as Theseus, Oedipus, and Orestes, who were believed to be capable of exerting considerable power within the vicinity of their graves. Their services could be invoked by animal sacrifice. A clay pipe was sometimes inserted into the grave to enable the blood to reach the hero directly. Other important categories of the dead who received special rites include those who had been murdered, suicides, and those struck by lightning.

The Greeks felt particular sympathy for those who died at a marriageable age but who were unmarried. To underline their sad plight, a stone marker in the form of a *loutrophoros*, the vase used for the nuptial bath, was placed over the grave. Generally, however, Greek funerary art is remarkably reserved in its depiction of death and all sentimentality is eschewed. Sculpture depicts the deceased in a domestic setting in the company of family members. A particularly common image is that of two people, either standing or seated, shaking hands. In such cases it is usually impossible to discern which is the deceased and which the living, and we are left wondering whether the handshake is one of farewell between the living and the dead or one of greeting between the newly arrived in the underworld and those less recently arrived.

By definition death separates the world of mortals from that of the gods. Though the Olympian deities occasionally mourn the passing of a favourite, for the most part they are indifferent to human loss. Their removal from the physiology of death was due to the fact that proximity to the dying and the dead exposed them to risk of pollution caused by death. As Artemis observes in Euripides' *Hippolytus* (1437f.), it is not permitted by divine law for a deity "either to look at the dead or to sully their eyes with the expirations of the dying". For the same reason no priest or priestess was allowed to enter the house of the dead or attend a burial.

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See also **Afterlife; Burial Practices; Dead (Cult of the)**

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DELIAN LEAGUE

Major source of Athenian power in the 5th century BC

The Delian League, a modern name for what was originally called "the Athenians and their allies", was established in the winter of 478/77 BC and lasted until the defeat of Athens by Sparta in 404 BC. It arose from discontent with Spartan leadership of the Greek war effort against Persia in the aftermath of the great victories in 480–479 and, particularly, with the conduct of the regent Pausanias in 478. According to Thucydides, the non-Peloponnesian allies, and especially the Ionians and those recently freed from Persian rule, approached the Athenians to lead them and they decided to take advantage of the situation (1. 95. 1–2).

The Athenians quickly settled on the contributions to be paid by members of the new alliance, either ships fully equipped for a campaigning season or money in lieu of personal service (*phoros*, usually translated as "tribute"), and arranged for a council (*synodos*), at which each member had one vote, to meet at Delos, where the treasury was established. Alliances at this time usually had a specific duration, but here the allies threw lumps of iron into the sea to bind everyone, including the Athenians, forever.

Several aspects of the alliance remain controversial, including its purpose, its extent, and the size of its revenues. Regarding its purpose, Thucydides says that the "pretext" (*proschema*) was to punish Persia for damage done (and to liberate any Greeks still enslaved: 1. 96. 1; cf. 3. 10. 3; 6. 76. 3); so this was not really a *symmachia*, an alliance whose members swore unconditionally to have the same friends and enemies (the word "pretext" may refer to later Athenian practice, when the league had become an Athenian empire and its resources were used for general Athenian purposes). As for its extent, there is no specific information about its membership at the beginning, though it seems likely that most non-Dorian islands of the Aegean plus coastal cities in northern Greece/Thrace, the Hellespontine area, Aeolia, and Ionia quickly joined; ultimately, there were over 200 members (cf. the Athenian tribute lists for 447–446 BC). With regard to finance, Thucydides states that the "*original* tribute" was 460 talents (1. 96. 2), which implies subsequent

adjustment; and indeed, in speaking of Athens' finances at the outbreak of the Peloponnesian War in 431 BC, he says that 600 talents of *phoros* came from the allies each year on average, exclusive of other revenue; there was also a reserve of 6000 talents, which had once been as large as 9700 talents. However, the detailed records of league monies entrusted to Athena for safe-keeping after the transfer of the treasury from Delos to Athens (probably in late 454 BC) suggest that the revenues deposited in Athens rarely, if ever, exceeded 400 talents per annum in the period 454–426 BC. Various attempts to explain this seeming contradiction include failure to pay/late payment by the allies, reduction of the tribute after *c.*467, and error on Thucydides' part: none of these suggestions is satisfactory and probably the best that can be done with this problem is Unz's suggestion (1985) that the amounts deposited in Athens represent surpluses from fleet operations, costs of maintaining bases and garrisons, and possibly shipbuilding in allied yards, all of which items were paid for on the spot from local or district revenues.

It cannot be denied that the league fulfilled its initial purpose: Persian bases in the north Aegean area were captured, the Dorian cities of southwest Asia Minor were liberated, an apparent Persian invasion force was intercepted and smashed in battle near the mouth of the river Eurymedon in Pamphylia, expeditions were sent to Cyprus on at least two occasions, and there was a major attempt to detach Egypt from the Persian empire (459–454 BC), all of which resulted in either a formal peace ("the Peace of Callias") or an agreed informal cessation of hostilities in *c.*450–449 BC. At the same time, however, the Athenians saw and seized upon opportunities for their own benefit and power: certain states were forced to join the league, many were prevented from leaving, and those that fell foul of Athenian rigour in insisting on punctilious fulfilment of membership obligations found themselves reduced to the level of "subjects" through the imposition of separate, bilateral "agreements" between themselves and Athens. The results of this were often humiliating – surrender of warships, dismantling of fortifications, obligations to submit certain types of court case to Athens for final judgement, acceptance of garrisons and overseers, imposition of "democratic" constitutions, provision of troops over and above the payment of *phoros*, adherence to Athenian standards in weights and measures, enforced participation in Athenian religious festivals, and, finally, a requirement that all adult citizens swear various oaths proclaiming loyalty, goodwill, and even love towards Athens.

The conversion of an originally free and voluntary alliance into an Athenian *arche* (empire) was well under way by 450 BC, and after this empire had received formal acknowledgement in the Thirty Years' Peace (446/45 BC), the Athenians would refer to it as such, quite casually, and even argue that they had a perfect right to it. This attitude gave rise to increasingly severe punishments for rebellion, as in the case of Mytilene in 427 BC, outrages such as the destruction of Melos for refusing to accept Athenian control (416/15 BC), and the culminating *hubris* of the Sicilian expedition of 415–413 BC.

Throughout history, assessments of the significance of the Delian League have tended to be ambivalent. The radical democracy of the Periclean age owed much to the cash from the league, which made possible many of the benefits widely available to Athenians, while the stored-up surplus (see above) paid for the great building programme undertaken on the Acropolis after 450 BC. However, Pericles was criticized at the time for "decking out the city like some vain woman . . . with thousand-talent temples" (Plutarch, *Pericles*, 12. 2; cf. the witty and sarcastic oligarchic pamphlet known as Pseudo-Xenophon, *Athenaion Politeia*), and although Athenian opinion in the 4th century regarded Periclean democracy as a class system whereby the "many" exploited and bullied the "few", there was, especially after the humiliating "King's Peace" of 387 BC, great pride in the power that Athens had wielded through the Delian League.

In modern times the period of the league has always been regarded as the "golden age" not only of Athens but of Classical Greece as a whole. However, even attitudes towards the league itself are still hotly debated: for example, in the 1950s and 1960s the question of whether or not the Athenian empire was "popular" among its subjects became an issue of Cold War rhetoric, with an English Marxist scholar arguing that it represented a liberation movement for oppressed masses in the various member states, while a US historian denied this with mutterings about "these days of 'People's Democracy'". Though this debate was conducted in somewhat simplistic terms, deeper consideration of the reality of the Delian League serves to remind us of two important truths: first, when Pericles describes the Athenian empire as a "tyranny" and when Cleon echoes this and describes its subjects as "disaffected conspirators", these are *politicians* attempting to persuade people to do something which they would not normally wish to do: politicians do not always tell the truth; second, given the polarization of Greece in the 5th century BC between Athens and Sparta, the average small state, although possessed of a typical Greek love of autonomy, was faced with a disagreeable choice: it is possible to *prefer* one of two options without particularly *liking* either of them (cf. the thoughts of Phrynichus described by Thucydides at 8. 48. 5–6).

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See also **Imperialism; Political History 490–323 BC**

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DELOS

Aegean island

Delos is a small island, surrounded by a circle of larger islands known collectively as the Cyclades. It is largely waterless and with little agricultural land. Its importance in antiquity therefore derived primarily from its religious significance, as one of the principal and international sanctuaries of Apollo. Greek mythology related that when Leto, pregnant by Zeus, was about to give birth, no place would receive her in case it incurred the wrath of Hera. Delos, which was then an unfixed, floating island, was the exception, and sheltered Leto, who gave birth there to Artemis and Apollo. In gratitude, Apollo fixed the island in its present location. Like most myths, this is a preposterous story, but there is no clear material reason why the island should have assumed its sacred character.

Evidence for activity on Delos dates at least as far back as the Late Bronze Age. Mycenaean remains, traces of walls and deposits of objects including figurines have been found in the area of the later Classical sanctuary. A revival or redevelopment of the island came with the general reawakening of the Greek world in the 8th century BC, and as a result of interest from the surrounding Cyclades. Particularly significant was the island of Naxos. By the end of the 7th century the Naxians had built a simple rectangular structure, its ridge supported eventually by a single row of thin marble columns, and later referred to as their Oikos, or house; it is very likely that this was in fact the first temple dedicated to Apollo. The marble for the columns was quarried on Naxos and shipped to Delos. Also of Naxian marble, and very spectacular, was a colossal statue of Apollo erected around 600 BC at the side of the Oikos. Only fragments survive, but they give an indication of the statue's original size. It stood on a single enormous block of marble, *c.*$5 \times 3 \times 0.82$ m, estimated to weigh about 32 tonnes; the statue itself was about four times life size, and therefore larger than the colossal statue in the sanctuary of Hera at Samos (much better preserved), which is about three times natural size. The Apollo statue copies the pose of the colossal statues of Egypt but, unlike them and like the Samian statue, was probably nude.

Towards the end of the 6th century Naxian influence waned, and eventually Delos came to be dominated by Athens, a domination that was to endure, with intervals of independence, for much of the island's history. During this first period a limestone temple was dedicated to Apollo; the building technique is similar to that of Athenian buildings. Delos was treated with respect by the Persians, with the intention of securing the sympathy of the Greek states, but after the defeat of Xerxes in 479 BC Delos became instead, under the protection of Apollo, the centre of the Delian League dominated by Athens with the purpose of keeping the Persians out of the Aegean and liberating the east Greek cities. Twenty years later, with the renewal of the Persian threat, the treasury and control of the league were transferred to Athens. The festival of Apollo continued and was of great significance still to the Athenians, who would dispatch each year one of the state triremes, the oared warships which had won the battle of Salamis. In 426 BC the Athenians went even further. Concerned that the plague which had decimated the population of Athens indicated that they had incurred the wrath of Apollo, the god of healing, the Athenians "purified" the island. Because of its sacred character laws prohibited birth and death on the island: pregnant women, and all those about to die, had to leave for the neighbouring island of Rheneia. Despite this there were many graves there (many perhaps dating to the prehistoric period). These were cleared and the contents shipped to Rheneia. The Athenians also built a new, marble temple to Apollo, in the Doric order: uniquely, it shows in its design the influence of the Parthenon.

By this time the island certainly had its own resident population, though as yet there is little archaeological evidence of the settlement they inhabited. With the defeat of Athens in the Peloponnesian War they attempted to reassert their independence, only to have the Athenians return in 394 BC. It was not until 80 years later, in the very changed world that followed the Macedonian conquest and the confusion that resulted from the break-up of Alexander's empire, that Delos became independent. All the same, it was used by the various successors of Alexander, particularly Ptolemy I and then Antigonus Gonatas, as the centre for their own island leagues by which they hoped to control the Aegean. This domination also meant patronage. The kings founded festivals (in their own honour, as much as Apollo's); they also had buildings constructed in and around the sanctuary, particularly porticoes (stoas). Most intriguing is a long narrow building east of the temples, the so-called Monument of the Bulls, because of the bulls' heads that rise above two internal half-columns. It was probably the Neorion, a ship shed in which one of the Hellenistic kings – almost certainly an Antigonid since these kings used the bulls' head motif elsewhere as in the Stoa of Antigonus – dedicated a ship in consequence of a naval victory; either Demetrius Poliorcetes, after the crucial battle of Cypriot Salamis in 306 BC, or his son Antigonus Gonatas, after the battle of Cos in the mid-3rd century BC.

In many ways the heyday of the island was in the 2nd century BC, particularly the years after the final Roman defeat and dismemberment of the Macedonian kingdom. The Romans restored the island to Athenian control, but this was a much weakened Athens, and the reality was Roman domination under a suitable disguise. Delos was declared a free port, and as such seriously interfered with Rhodian trade when that island, an erstwhile loyal supporter of Rome, displeased the Romans through half-hearted support in the war against Macedon. The island received an influx of Roman and Italian settlers, along with traders from other places, such as Berytus (modern Beirut). Under the settlers and the Greek inhabitants the area of the town increased considerably, with many luxurious houses, typically with splendid (though later robbed) mosaic floors, marble columns round courtyards (beneath which were deep storage cisterns to alleviate the perennial water shortage), and walls built of local stone which were plastered and decorated with elaborate painted designs. Trade was vigorous; Delos, despite its religious significance, was an important place for the sale of slaves, many derived from the hinterland of Anatolia.

In the disintegrating political conditions of the 1st century BC, after the kingdom of Pergamum was bequeathed by its last king to the Romans, piratical raids from the harbours of southern Anatolia grew in intensity. Delos, a small island with no defensive system, was particularly vulnerable. In 88 BC it was seized by the troops of Mithridates king of Pontus in his war against the Romans, and pillaged. The destruction was completed by his allies, the pirates of Athenodorus, in 69 BC. Even the special centre sections of the mosaic floors were removed, and the town abandoned.

Thereafter, though the island continued to function religiously, activity was on a small scale. There are indications of a Christian population in the 3rd century AD, but the island was finally sacked in the 8th century AD, and then awaited its rediscovery by western scholars, beginning with Cyriac of Ancona who visited the island in 1445.

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See also **Delian League**

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DELPHI

Ancient sanctuary of Apollo in central Greece

Delphi was the principal sanctuary of Apollo on the Greek mainland, situated on a shelf of land on the southern slopes of Mount Parnassus, and looking out to the sea at Itea and the gulf of Corinth. It was therefore accessible from the Peloponnese by sea across the gulf. Land routes linked it with the isthmus of Corinth and Athens by way of Thebes in Boeotia, while another route passed directly to the north, to the back of the mountains above Thermopylae and down to the plain of Lamia. Geographically it belonged to the district of Phocis (whose most important city, Amphissa, was only a short distance away), but such was its religious importance that it was controlled rather by a special international body, the Amphictyonic Council, the council of ''those who dwell around'', i.e. the surrounding communities which had a special interest in the religious significance of the place. In addition to the sanctuary there was a small adjacent town, but this was little more than ancillary to the religious function.

The reason for its religious significance (outside the mythology attached to it) is nowhere stated, but it was probably a combination of its generally awesome character, with the towering cliffs of the mountain immediately above, and the abundant supplies of water from its springs, including what was probably the most renowned spring in Greece, Castalia. Delphi originated in prehistoric times, and there are traces of walls and the usual deposits of figurines from the Late Bronze Age. According to myth, Apollo took over the sanctuary from its previous owner, Gaia. This may represent a change of presiding deity during the period that followed the political and cultural collapse of the Late Bronze Age communities, but everything seems to have been on a small scale, and there are no significant remains until the 6th century BC.

From the religious point of view, Delphi was most famous for its oracle. Pilgrims to the sanctuary could present their enquiries to the Pythia, the priestess, who mounted the sacred tripod in order to respond: the belief that she would go into a trance and rave is now discredited. Most famously, the enquiries were for predictions of the future, many of which are recorded by Herodotus, most notoriously the reply given to the non-Greek king of Lydia, Croesus (who was a great supporter of the sanctuary, showering it with expensive dedications, having been impressed by its efficacy). His last consultation was to enquire what would happen if he engaged in war with Cyrus, king of Persia. The oracle replied that a great empire would be destroyed, but omitted to say which. Croesus thought it meant the Persian empire, so went to war: in the event, it was his own empire that was destroyed. Most of these apparent oracular responses were probably inventions, and actually postdate the events they were meant to predict. They tended to obscure the true nature of the questions and responses, which was to seek guidance concerning the proper course of action to be followed in given circumstances. These could be for an interpretation of religious behaviour – what was right and proper – where the oracle was believed to have specialist knowledge and status far removed from mere fortune telling. The oracle, and its representatives, must have acquired a fair general knowledge of the world in which the Greeks lived, practical as well as religious. Advice was given on whether to send out a colony, or where, and what procedures would be desirable. The oracle was not above being influenced by others. In the last quarter of the 6th century BC a splendid new temple was built to Apollo, surrounded by a complete peristyle of Doric columns. It was to be built, as was most Delphian architecture, in the local limestone. The Athenian politician Cleisthenes undertook the contract (which meant he was financially liable if the work did not come up to the required standard), but for the east front and its pediment sculpture he provided at his own expense costly imported white marble from Paros. This was not altruistic; in return, the oracle responded to consultations by the Spartans by putting pressure on them to intervene and secure the return of Cleisthenes from exile to Athens. It worked.

The sanctuary consisted of a series of terraces, rising one above the other and linked by a ''sacred way'', a processional route which zigzags from the lowest terrace to the front of the temple at the middle level. Cleisthenes' temple was destroyed by a fall of rock in the 4th century BC, but was rebuilt to the same plan and design, the funds this time being collected by contributions solicited from the whole of Greece. Lining the sacred way were dedications to Apollo given by cities which had cause to be grateful to him. These included statues, or groups of statues set on bases of various forms and elaboration, up to complete buildings, the so-called treasuries (a misleading translation of the Greek term *thesauros*) some of which were elaborately decorated miniature temples. The most elaborate example

was that given by the Cycladic island of Siphnos in gratitude for the discovery of a rich vein of silver on the island. Female figures (usually called Caryatids) replaced the more usual columns of the porch, which in this case would have been in the Ionic local to Siphnos, not the Doric of the mainland. Lavish sculpture also decorated the frieze and pediments. Nearby is the treasury of the Athenians, which perhaps celebrated Cleisthenes' return and the restoration of democracy at Athens, though many scholars believe it was a thankoffering for the victory at Marathon some 20 years later. Another famous offering was the tripod, a bronze cauldron supported on a column formed by intertwined snakes of bronze. This celebrated the Greek victory over the Persians at Plataea. The commander of the Greek allies, the Spartan regent Pausanias, boastfully put his own name on it. This caused offence, and the name was removed; instead the column was engraved with the names of the Greek states which had fought together against the Persians. It was eventually removed in the early 4th century AD by the Roman emperor Constantine, who took it to his New Rome, Constantinople, where part of it still survives.

There were many more memorials, and the sanctuary was enlarged in stages to accommodate them all. Round it was a substantial perimeter wall, the *peribolos*, also extended and improved over the ages, but which eventually, in the Hellenistic age, burst its seams with some buildings, such as the Stoa of Attaus, being constructed over it. In addition, several buildings were built below the main sanctuary including a second, smaller sanctuary, with a succession of temples of Athena, more treasuries and the circular Tholos, a Doric building of the 370s BC, the purpose of which, and, indeed, proper name, is uncertain. Nearby stood a gymnasium.

The sanctuary continued to flourish in the Hellenistic age. It was consulted by the Athenians early in the 1st century BC, when they wanted to restore religious practices which had ceased with the passage of time. It was supported by the Romans, and continued to be consulted and respected into the 2nd century AD. In the confusion of the 3rd century AD it fell into decline and evident disrepair. Attempts were made to tidy it up, but with the conversion of the empire to Christianity its purpose was lost. The emperor Julian tried to revive it as part of his restoration of paganism in the 360s, but the authorities had to make the sad reply "Tell the emperor that my hall has fallen to the ground. Phoebus no longer has his house, nor his mantic bay nor his prophetic spring: the water has dried up."

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See also **Oracles; Sanctuaries**

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DEMOCRACY

When the Athenians finally settled on "democracy" to describe their characteristic form of government, the term won out over several competitors: *iso-kratia* (equality of power), the Ionic word *is-egorie* (equality of expression), perhaps also *iso-moiria* (equality of sharing). Originally, "demos" meant the whole people, including aristocrats, but by the 5th century BC it came to imply, if not actually connote, the common people, the plebs. *Demo-kratia* means "power (*kratos*) exercised by the whole people (*demos*)", and it was used in explicit contrast to other more restricted forms of government such as *aristo-kratia* (power held by "the best") and *olig-archia* ("rule by a few").

Democracy had roots and antecedents. Already in Homer's day (perhaps 725 BC) rulers had lost, or were losing, whatever autocratic power they may have once possessed. The Greek high command at Troy felt it prudent, if not necessary, sometimes to summon assemblies to hear proposals and – ideally – ratify them without significant opposition. In *Iliad* 18 Achilles' shield is described as depicting some kind of popular gathering engaged in judging conflicting legal claims. At the end of the *Odyssey* the Ithacans assembled to debate alternative courses of action in response to Odysseus' slaying of the suitors. "Dark-Age kingship", a shadowy and poorly documented period, gave way in most Greek cities to oligarchic rule by a fairly wide circle of aristocratic families. Best attested is the government of the Bacchiadae at Corinth, and in many states, e.g. Thebes, this was the form that prevailed, with variations, through the historical period.

Sparta was an exception to this pattern. Here, in the mid-7th century, there occurred an experiment in a kind of proto-democracy. A document known as the "Great Rhetra" records a brief interval around 650 BC when the assembly of all Spartan citizens had the right to "speak in opposition" and make modifications to legislation introduced by their two kings and council of elders. The privilege lasted a generation at most, after which the legislative process reverted to the system familiar from other oligarchies in which the popular assembly served as little more than a rubber stamp of proposals put to it by the ruling council. Also of interest is an inscription from the island of Chios dated 575–550 BC that details a judicial procedure involving "(legislative) enactments of the *demos* [people]" and a "council of the *demos*" to hear judicial appeals.

First moves were made towards democracy at Athens when Draco produced a law code about 621 BC. Although it was remembered as having been extremely harsh, the very fact that it was written down was a step towards justice for the ordinary citizen, who now had some recourse against arbitrary decisions by the aristocrats. A reasonable claimant to the title "Father of Athenian Democracy" was Solon, a far-sighted and imaginative individual who revamped the Athenian law code in 594 BC. Athens was on the brink of class warfare brought about in part by an antiquated system of land tenure that allowed wealthy landowners to take over smallholdings and reduce their former owners to the status of indentured serfs. One of the slogans attributed to Solon was "equality breeds no war", but what he brought about was equality not of possessions – he resisted demands made by the poor to redistribute the land – but rather equality before the law. He is reported to have said, when asked what he considered the best city to live in, "the one in which

those people who are not wronged, no less than those who are, come forward and punish the wrongdoer''. From now on anyone who wished could seek legal redress on behalf of one perceived to have been a victim of injustice, and magistrates' decisions could be appealed to a jury court. According to Aristotle, ''Solon appears to have set up the democracy by constituting the jury courts from all the citizens'' (*Politics*, 1274a1ff.).

The period after Solon was marked by civil unrest and a spell of ''tyranny'' by Pisistratus and his sons. Luckily for the Athenians, their lawcode was left intact; the Pisistratids merely manipulated it in such a way that their own supporters were usually in positions of authority. After the tyrants were driven out in 510 BC there was a danger that matters would collapse into a melee of aristocratic infighting, but one of the contenders, Cleisthenes the Alcmeonid, swung the balance in his favour by promising the *demos* reforms. Cleisthenes effectively cut through and dismantled local fiefdoms based on the aristocrats' control of religious and political activity within their own regions. Cleisthenes regrouped the citizen body along national lines. Voting on important matters and serving in the army were henceforth to occur within a complex and artificial system of ten newly created tribes, whose distinctive feature was that they were composed of members from widely disparate districts of Attica. Moreover, Cleisthenes either created a legislative council for the first time or drastically refashioned an earlier and more primitive *Boule* (council) instituted by Solon. As will be seen, the Boule was the pivot around which the whole democratic legislative apparatus functioned.

A further important step towards democracy was made by the reform of the Areopagus, Athens' senior council, by Pericles and Ephialtes in 462 BC. Most of the judicial functions of this venerable body were distributed among the Council of 500, the Assembly of the people, and the lawcourts. Probably at this same time Pericles also introduced a bill that provided a daily allowance to members of the juries. This made it possible for poorer citizens to put their names forward to serve on the juries, and gave substance to the claim that an Athenian brought before a court of law was given a trial before a ''jury of his peers''. It was a characteristic of the full-blown democracy that payment was subsequently instituted for other kinds of public service: discharge of duties as a councillor, infantry duty, rowing in the fleet, and, finally, attendance at meetings of the Assembly and, for citizens who could demonstrate financial need, admittance to the major dramatic festivals.

What made Athenian ''democracy'' truly democratic in practice was the ubiquity of the lot as an instrument of selection. Certain officials were elected: the ten generals, one from each of the (Cleisthenic) tribes, and other officers whose functions were rather specialized, like treasurers. Otherwise, allotment to office was the rule, from the annual archons down. This system of allotment was all-pervasive. There are references to boards of ''contractors'', ''market supervisors'', ''weight-and-measure superintendants'', ''inspectors of dockyards'', and so on, so that the figure of 700 for such annually rotating officers, preserved in the *Constitution of Athens* but sometimes doubted, seems entirely believable.

If sovereign power rested with the *demos* collectively assembled, which had responsibility for war and peace, taxation, foreign affairs, and other important matters touching on the welfare of the body politic, what assured relatively smooth functioning of the whole apparatus was the Boule or Council of 500, ten tribal contingents of 50 chosen annually by lot and known as *prytaneis* (with the tenth part of the year in which they served known as a ''prytany''), who took it in turn in a sequence decided by lot at the end of the preceding prytany to prepare the agenda for the Assembly. The 50 *prytaneis* met daily and actually lived together for their 35 or 36 days in a special building, the Tholos. Effectively, the day-to-day running of the Athenian state fell to them. They had the further duty of selecting, also by lot, one of their number to preside at their own meetings and at the meetings of the Assembly, which were held normally four times each prytany, that is, 40 times a year. On a famous occasion the lot fell to Socrates, whose tribe held the prytany at that crucial juncture, to act as president of the Assembly when the motion was brought to try as a group the generals who had been charged with dereliction of duty for failing to rescue survivors after a naval battle off Lesbos in 406 BC. Because he was unwilling to contravene a law requiring defendants to be tried individually and not as a group, Socrates refused to have any part in the proceedings. He was replaced by someone (whose name is not recorded) more willing to compromise his principles and connive at illegality.

No councillor could serve more than twice in his lifetime, and then not for two years in succession. Thus, there was no possibility of a cadre being formed, or the development of any continuity of interest, especially covert. Figures for the total population of Athens in the Classical period can only be guesses, and estimates of the percentage of male Athenian citizens who would have served on the Boule at least once in their lifetimes range between one-third to one-half (J. O'Neil) and 70 per cent (R. Osborne). The whole system was one of absolute equality. Men of varying interests, abilities, and backgrounds served together, on a temporary basis, and because of the transregional nature of the tribal membership noted above, it was the city as a whole whose needs were being served, not those of individual districts, nor of segments or interest groups within the population.

There is evidence of a cult of Demos, the Athenian populace conceived of as a collective abstraction, on the Hill of the Nymphs near the Pnyx at Athens from before 450 BC. Before the end of the 5th century the abstractions Demokratia and Oligarchia appear as personified opponents, and a cult of Demokratia is attested on inscriptions from the 330s. In this period also Boule, the personified Council, appears as a parallel abstraction. A surviving relief sculpture on a decree dated 337/6 from the Athenian Agora shows Demokratia crowning a dignified-looking, sceptred Demos who is seated on a throne. Athens was not alone in iconographically honouring Demokratia, for a statue of the goddess is depicted on a coin of Cnidus dated 300–190 BC.

Democracy defined the Athenian political ethos as at no other ancient Greek city, but there are traces of democratic periods elsewhere: Syracuse, Mantineia, Argos, Corfu, Rhodes, Thurii, Tarentum, Heracleia on the Pontus, Thasos, Epidamnus, and possibly Megara. When at the height of their imperial power, the Athenians tried to impose their democratic system on various dependent states, among them Boeotia and, in Ionia, Erythrae and possibly Miletus.

Aristophanes in *Knights* and Plato, the comic writer, in a play whose title is not preserved made fun of Demos as a

cantankerous old man all too willing to be flattered, duped, and led astray by wily but unprincipled politicians. Other critics, such as the historian Thucydides and the philosopher Plato, were more scathing. What such critics feared was the tendency of an electorate to disintegrate into an unruly mob, like (in Plato's vivid image) a raging beast, unwilling to take direction from enlightened (i.e. aristocratic) leaders and yielding instead to the self-serving cajolery of (plebeian) demagogues. This continues to be the paradox of any modern democratic system, where large populations and an inflated governmental apparatus seem to require some kind of representation rather than the direct democracy of ancient city states: since election to office today depends upon heavy financial outlay by candidates, who, if elected, must then spend much of their time trying to divine the voters' sometimes only vaguely formulated and often inconsistent desires, the term "politician" has become more a label of disparagement than a job description.

Long after Athens had lost any claims to importance on the world stage or independence of political action, it maintained the forms of its democratic past: a decree survives from about AD 220 mandating a revival of the Eleusinian festival that opens with the characteristic formula, "It was decreed by the Demos". Such associations with popular government, however, gradually lost favour during the Roman period. By the 5th century AD the word "democracy" had acquired distinctly adverse connotations and for the Byzantines it came to mean a popular disturbance or riot.

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See also **Government (Theories of)**

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DEMOGRAPHY

Demography as a scientific study of the size, distribution, and composition of human populations did not exist among the ancient Greeks. Moreover, in studying the population of ancient Greece and the relations between its component parts (such as old and young, male and female, slave and free, etc.), modern demographers are hampered by the lack of reliable figures and statistical information.

After the rediscovery and spread of the art of writing, and at least from the 6th century BC, the Greek states must have kept records concerned with the status and duties of citizens or with financial obligations and benefits, but such records would have applied to free men rather than slaves, and to adult men rather than women and children except in so far as these latter were involved in matters of citizenship. There are more inscriptions from the 4th century BC onwards, but these are generally religious, social, or honorific and it is uncertain to what extent local figures of population levies were consolidated and recorded in any permanent fashion.

Due to the emphasis that ancient historiography placed on warfare, most available data relate to the size of military forces or to the manpower available for military purposes. In other words, they refer only to adult male citizens. From such numbers attempts have been made to estimate the size of the entire population including women, children, and slaves. For example, Gustave Glotz's estimate (in *Ancient Greece at Work*) of the population of Attica during the Classical period is based on the number of Athenian hoplites at the beginning of the Peloponnesian War, as stated by Thucydides: according to this

calculation there were then some 40,000 adult Athenian citizens of all classes, making with their families a total of 140,000, with about 70,000 metics and probably between 150,000 and 400,000 slaves.

Censuses of citizens were rare in the ancient Greek world. Only one census is recorded for Classical Athens, the one carried out by Demetrius of Phaleron in the late 4th century BC, whose results are preserved by Athenaeus (6. 272c). No results for Greece or any other region are preserved from the Roman censuses mentioned in the Gospel story of the birth of Christ (Luke 2: 1–2).

Information regarding changes in settlement patterns in ancient Greece, probably connected to population fluctuations, is supplied by intensive archaeological field surveys. Although there are local variations during all periods, the general pattern is of a sparsely populated landscape in the 11th and 10th centuries BC, followed by a substantial increase in most areas from the 9th century BC, culminating in the period from the 5th to the 3rd centuries BC and declining in the last two centuries BC and during the Roman empire. It is thus possible to accept the growth of population as at least a partial cause of Greek colonization from the 8th century BC onwards, as it undoubtedly was after the time of Alexander the Great. It is, however, difficult to say whether the colonizing activity of the Archaic period led to a long-term reduction of population in mainland Greece. This activity continued until the 6th century BC, after which there was opposition in the West from the Carthaginians, Etruscans, and Illyrians; and the suitable sites around the Aegean Sea were all occupied. Cities then began to grow, and to produce goods, with the help of captured slaves, partly in order to pay by exports for the corn they now had to import.

There were no birth or death certificates in ancient Greece and, consequently, ages given in literary sources are generally unreliable. However, a study of the relationship between the age and sex of a skeleton and particular grave goods can be useful in the investigation of prehistoric social organization (Halstead, 1977). Study of the skeletal remains of male individuals of the Early, Middle, and Late Helladic periods from the Greek mainland and the islands reveals a morphological homogeneity of the population throughout the Bronze Age (Xirotiris, 1980).

A high level of infant and child mortality in Classical Greece is suggested by excavations of cemeteries. There is even less evidence for fertility rates than mortality rates, but fertility levels must have been much higher than in advanced modern societies. For, although family limitation measures such as infanticide or abortion may have been practised in some social classes, religions, or periods, the high infant mortality must have encouraged large families to ensure that some children reached adulthood to inherit the property, provide additional farm labour, and support the parents in old age. A very important factor influencing fertility levels is the average age of marriage, particularly for women, and the few references in literary sources (e.g. Hesiod, *Works and Days*, 695–98) suggest a pattern of late marriage for men (around 30) and early marriage for women (mid- to late teens), the latter making high fertility rates possible. In their ideal states both Plato and Aristotle provided that parents should breed only when in their prime. Plato puts this for women at from 20 to 40 years of age, for men from the end of their prowess at racing until 50 (just like stud horses). Aristotle wished women to marry at 18, men at 37: they were then in the prime of life respectively, and the decline in the powers of both would coincide.

On the other hand, the emancipation of women in the Hellenistic age was accompanied by a revolt against wholesale motherhood, and the limitation of the family became the outstanding social phenomenon of the age. Abortion laws became more lenient, and exposure of children more common. In the old cities families raising more than one daughter would be one in a hundred: according to Poseidippus, ''even a rich man always exposes a daughter''. Sisters were a rarity, but one-child or childless families were common. Around 200 BC, out of a total of 79 Milesian families, 32 had one child, 31 had two; altogether they had 118 sons and 28 daughters (Gustave Glotz, *Ancient Greece at Work*, 1965, p.298; W.W. Tarn, *Hellenistic Civilisation*, 1927, p.86). At Eretria only one out of 12 families had two sons, and hardly any had two daughters. Infanticide received the approval of some philosophers (though not of Socrates/Plato in the *Republic*, who recommends only the separation of inferior children from the guardian class: cf. Mulhern, 1975) as a means of reducing the pressure of population; but the practice spread among the masses to such an extent that the death rate overtook the birth rate. The extent of family limitation may be gleaned from the fact that by forbidding it Philip V of Macedon raised the manpower of his country by 50 per cent in 30 years (Tarn, p.88). Around 150 BC Polybius (36. 17) lamented the desertion of the cities and the unproductiveness of the land resulting from a low birth rate and a general decrease in the population. He ascribed this to selfishness and indolence, and to a desire to give one's children too high a standard of living. But it may equally well have been due to demoralization and reluctance to bring children into a world of incessant war, revolution, banditry, and violence in general, with a high chance of poverty, enslavement, or early death. And if it is true that Aemilius Paullus, after defeating king Perseus of Macedon at Pydna in 167 BC, carried off 150,000 into slavery from the region of Epirus alone, there we have an example of one cause of depopulation, and of demoralization among the remnants (Wilkinson, 1979, ch.1).

It has been suggested that some 10 per cent of females may have been exposed at birth in order to avoid an excess of marriageable women (Golden, 1981). But this hypothesis cannot be demonstrated, and would require the unwarranted assumption that the Graeco-Roman era had a sustained surplus of births over deaths. It has been pointed out that a high rate of female infanticide was impossible for any ancient population since it would cause a decline in a nearly stable population (Engels, 1980, 1984).

Our extant evidence is mainly concerned with Athens and largely confined to the 4th century BC. It consists of fragmentary sources such as lists of *epheboi* (young men undergoing military training), *bouleutai* (councillors), and *diaitetai* (elderly men serving as arbitrators). It is not clear whether these groups were recruited from the entire body of adult male citizens or from only among the hoplites and the upper classes. According to Hansen (1989) ephebic rosters cannot be used to calculate accurately the total number of Athenian citizens during the 4th century BC. Every Athenian boy of 18 was registered in the deme of his father, and the total of these deme registers formed the list of those entitled to take part in the assembly. Similarly

there were lists of 18-year-old boys eligible to become *zeugitai* liable to hoplite service and *thetes* liable to service in the Athenian navy. Both boys and girls were enrolled in their phratries, but there were no other records of citizen women. Demetrius' census enumerates 21,000 citizens, but it is uncertain whether this figure includes all citizens or merely those liable and fit for hoplite service. The number of metics, which is given as 10,000, is the only figure for this status group that has come down to us. Metics were required to pay a tax and were registered in their deme of residence.

The suggestion of Herodotus (5. 97. 2) that there were about 30,000 Athenian citizens in the early 5th century BC has sometimes led to the indiscriminate assumption of this figure for the rest of the Classical period as well. However, evidence of the size of Athenian military forces during the 5th-century BC empire suggests that by the middle of that century there were at least 50,000 or possibly even 60,000 citizens, thus indicating a substantial growth since the early 5th century BC. This level was maintained until the beginning of the Peloponnesian War, when it began to decline as a result of the plague and the heavy casualties in battle, especially during the expedition to Syracuse in 415–413 BC. Moreover, after the introduction of Pericles' citizenship law of 451 BC, the Athenian citizen population was doomed to be stationary or to decline. Any significant increase in the number of citizens was ruled out by the strict rules for accepting new citizens combined with the continuous emigration from Attica (Hansen, 1982).

Most uncertain of all is the number of the slave population. The Athenian census of Demetrius records their number as 400,000, and similar incredibly high figures are given for Aegina and Corinth as well in sources of varying reliability. Thus, around 350 BC, Aristotle calculated that Aegina had a population of half a million, of whom 470,000 were slaves (Calhoun, pp.30–31). Nevertheless, there may have been considerably more slaves in the time of the 5th-century BC Athenian empire than there had been earlier.

Although Laconia had much of the richest land in Greece, it was thinly populated. According to Herodotus (7. 234. 2; 9. 10. 1), Sparta had 8000 potential soldiers in 480 BC, and in 479 BC 5000 actually took part in the Battle of Plataea. However, by Aristotle's time the citizen population seems to have cone down to fewer than 1000 and the causes of this decline have been much debated: such diverse factors as the structure of Spartan society, casualties in war, inheritance patterns, and the earthquake of *c.*464 BC have been invoked to explain it. In the opinion of Aristotle (*Politics*, 1270a29–34) this serious problem of manpower shortage was the reason for Sparta's downfall. Yet we must remember that the citizens comprised only a small proportion of the total population. Although figures for the number of Spartiates between the ages of 21 and 50 and *perioikoi* ("dwellers round") in the army are given, their proportion to the total number of Spartiates or *perioikoi* can only be conjectured. The number of helots is still less well known, except that they were relatively more numerous in proportion to the free population than were serfs in any other state. At all events we know that at some time Sparta introduced severe penalties for celibacy as well as rewards for child-bearing. It was seriously concerned even about the loss of the 124 Spartiates trapped by the Athenians on the island of Sphacteria in 424 BC. By the time of its debacle at Leuctra in 371 BC it had only 1000 of these; whereas Aristotle calculated that its territory could have maintained 30,000 infantry and 1500 cavalry. An unwillingness to breed because of a decadent obsession with personal wealth seemed to be the chief cause of the population decline. Nor was there, as in Athens, a strong religious cult of ancestors to motivate perpetuation of the family.

The citizen population of Argos and Boeotia during the 4th century BC may not have been dissimilar to that of Athens, to judge from their military strength, but they probably had fewer resident aliens and slaves. Corinth, which in the 5th and 4th centuries BC had less than half the hoplites of Athens, may have had half as many inhabitants as Athens, if not fewer. The poor and mountainous country of Arcadia produced many emigrants; and yet it had 6000–7000 hoplites in the 4th and 3rd centuries BC. By comparison with Attica this would mean a citizen population of about 80,000–90,000. On the other hand, the prosperous Greek colonies of Sicily and Italy were densely populated and, despite the lack of evidence, we may assume that the size of their populations exceeded that of virtually every state in mainland Greece. To take just one example, according to Diodorus Siculus (3. 9) the wealthy and prosperous city of Sybaris had 300,000 inhabitants.

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See also **Emigration; Family; Slavery**

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DEMONS AND SPIRITS

Our word "demon" comes from the ancient Greek *daimon*, from the verb *daiein*, "to distribute". In the Homeric and Classical periods *daimon* could be used as a synonym of *theos* to mean simply "god". More frequently, however, *daimon* referred to "divine power" in the abstract as opposed to the personified deity denoted by *theos*. In a wide range of Classical sources *daimon* could mean "the power controlling the destiny of individuals". It carried overtones of "a portion" (*moira*) in the sense of "fate". A *daimon* was both the distributor of destinies and the destiny itself.

In contrast to the Olympian gods, the *daimones* were not honoured by any cult or shrine within the polis. Nor were they represented in myth, drama, vase painting, or sculpture. They were a nameless, ill-defined plurality of supernatural beings, yet this semantic vagueness suited them for new applications in the course of time, especially in the area of psychology.

A productive set of meanings for *daimon* derived from Hesiod, according to whose *Works and Days* the souls of men from the golden age became good *daimones* who watched over and protected mortal men. In the *Timaeus* Plato allocated them to the *aither* (upper air), above the *aer* (lower air) where heroes and departed souls resided. Souls and *daimones* alike were physically composed of *aither*, a mysterious fifth element (*quinta essentia*). The *daimones*' position between heroes and gods was not, however, stable, and Plato elsewhere equated all fallen soldiers with *daimones*, while during the Hellenistic period any deceased person could be called a *daimon*. In this sense *daimon* came close to the ideas of soul (*psyche*) and spirit (*pneuma*).

Daimones also had associations with human emotions, beginning with the *Symposium*, where Diotima introduced Eros as a *daimon*. Plato furthermore (*Timaeus*, 90c) considered that humans should pursue learning and true thoughts in order to achieve "happiness" (*eudaimonia*) – a state in which the good internal *daimon* conies to the fore. It was Plato's pupil Xenocrates who conceptualized demons as dark, lustful forces, thereby initiating the shift of the *daimones* from elements of a scientific, philosophical cosmology to elements of a moral one. This would be a slow and uneven transition lasting centuries and not definitively finishing until the rise of Christianity. During the Hellenistic period *daimones* continued to be treated as intermediaries. For example, it was thought that they sent dreams. In Neoplatonic magic, as represented by the Chaldaean Oracles, the *daimones* could be addressed and their aid enlisted through elaborate rituals involving the spinning of a top, or *iunx*. Alternatively, messages enlisting demonic help against an enemy could be written on lead tablets and buried along with the dead. Or the *daimones* could be appealed to, or controlled by resort to more powerful gods, through elaborate spells recorded on magical papyri.

The Christianization of the Greek-speaking world did much to polarize the demons as exclusively evil spirits located on, or in, the earth. The already many-stranded traditional conception of *daimones* was reorientated by the Judaeo-Christian story of Satan who, in an act of hubristic jealousy, attempted to place his throne higher than God's. In recompense he was cast down from the heavens, along with his conspiring angels who became demons – a word that, through phonological changes in the language, was now pronounced *demones* (as indeed it still is in modern Greek). Demons in the Christian world were unequivocally evil, associated with matter, sin, corruption, and the body, as opposed to the values of Christian purity, restraint, and spirituality overseen by God and Christ.

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See also **Spells**

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DEMOSTHENES 384–322 BC

Orator

Demosthenes was the son of a wealthy Athenian manufacturer of swords and cutlery. His father died when he was 7 years of age, leaving him under the control of three guardians who embezzled most of the inheritance. After studying rhetoric with Isaeus, Demosthenes began a series of prosecutions against his former guardians and recovered some of the lost money (364 BC), but more significantly, gained a reputation as a speech writer. He also taught rhetoric, but he had grander ambitions and overcame a speech impediment by practising declamation with pebbles in his mouth and shouting above the noise of the waves at Phalerum.

Demosthenes' political career began in 355 BC, when he was commissioned to write *Against Androtion* for a political trial. In the early period he may have opposed the policy of Aristophon, who was advocating war with Persia, and he attacked Eubulus in *On the Syntaxis* (353/52 BC). By 351 BC he recognized the dangers posed by Philip II and delivered the unsuccessful *First Philippic*, followed by the three *Olynthiacs* (349 BC). In the third of these Demosthenes alludes critically to Eubulus' policies, which in 348 BC led to costly Athenian intervention in Euboea. In the same year he became involved in litigation against Meidias, a leading supporter of Eubulus, who slapped Demosthenes' face at the Dionysia, The *Against Meidias*, however, was never actually delivered, since the two reached an out-of-court settlement.

In 348 BC Demosthenes successfully defended Philocrates, when he was prosecuted for proposing negotiations with Philip, but soon afterwards Olynthus fell, and Demosthenes helped to secure the Peace of Philocrates (346 BC). Aeschines attacked Demosthenes for the poor part he played in the negotiations, and it was Aeschines who championed the treaty before the assembly, which knew that Philip was already threatening Phocis. It is unclear what Demosthenes tried to propose at this meeting before being shouted down, but he subsequently worked to undermine the peace, gathering supporters to strengthen his anti-Macedonian position, including Hyperides and Lycurgus. He was also plotting his revenge on Aeschines, claiming that he had been bribed by Philip, but his attack on him through the agency of Timarchus was a failure. This was, however, only a temporary setback. In 344 BC, with Philip interfering in Thessaly and rumours circulating about his proposed intervention in the Peloponnese, Demosthenes persuaded the assembly not to renew the peace by his *Second Philippic*. Hyperides successfully prosecuted Philocrates (343 BC), while Demosthenes prosecuted Aeschines with *On the False Embassy*. Demosthenes' case was weak, but despite the support of Eubulus and the prominent general Phocion Aeschines was only narrowly acquitted.

In 341/42 BC Philip turned his attention to the Chersonese, threatening Athens' corn supply from the Black Sea, and his supporters in Athens demanded the recall of Diopeithes from Thrace. Demosthenes supported Diopeithes in *On the Chersonese* and the *Third Philippic*, one of his finest speeches, in which he spelled out Philip's designs on Greece and urged the Athenians to defend the Chersonese and Byzantium. An alliance was formed with Byzantium (341/40 BC), and although Philip seized Athens' corn fleet, his advance on Byzantium was checked. Demosthenes was now supreme in Athens and had the allocation of surplus revenues to the Theoric Fund suspended, but could not prevent Aeschines fomenting a Sacred War in 339 BC. Philip marched into Phocis and took Elatea, and Demosthenes persuaded the Athenians to make an alliance with their old enemy, Thebes. The allies met Philip at Chaeronea, but were crushed (338 BC).

Demosthenes continued to work energetically on the city's behalf after the Macedonian conquest and delivered the public Funeral Oration of 338 BC. In 337/36 BC he was theoric commissioner, and Ctesiphon proposed that he be honoured with a gold crown at the Great Dionysia for his services to Athens. Aeschines immediately indicted Ctesiphon for making an illegal proposal, but let the case drop because the political climate in Athens changed with the death of Philip. After Alexander had reestablished Macedonian control and defeated Persia, Aeschines resumed his attack (330 BC), blaming Athens' troubles on Demosthenes, but Demosthenes' masterpiece, *On the Crown*, easily won the day. He remained a prominent figure in Athens until the Harpalus affair (324 BC). Alexander's treasurer Harpalus arrived in Athens with a vast sum of money, and Demosthenes proposed that he be imprisoned and the money stored on the Acropolis. Harpalus escaped, and it was discovered that some of the money was missing. The Areopagus cited Demosthenes, who was prosecuted by Dinarchus and Hyperides; fined 50 talents, he retired into exile. He returned to Athens after Alexander's death (323 BC) and advocated renewed resistance to Macedon in the Lamian War, hut the Greeks were defeated at Crannon by Antipater (322 BC). Demosthenes, Hyperides, and their supporters fled; Demades proposed that they be sentenced to death, and Demosthenes committed suicide on the island of Calauria.

Judgements of Demosthenes' leadership have inevitably been affected by the brilliance of his speeches, and his championing of liberty tends to be seen in too simple a contrast to the servile acceptance of Macedonian rule by his opponents, whom he constantly accused of being bribed. In truth, other politicians were probably making proposals that stood a greater chance of success in maintaining Athens' freedom, particularly the uniting of the Greek states in a common peace. Athens alone lacked the resources to resist Philip in the way Demosthenes advocated, and his policy of fighting a war in the north was not popular with other Greek states, who realized that a successful outcome would result primarily in the greater glory of Athens. But this is not to deny Demosthenes' stature as one of Athens' greatest leaders.

From the literary point of view Demosthenes has been recognized by both ancient and modern critics as the best of the Attic orators. One of his outstanding qualities was the

ability to vary his style to suit the occasion of the speech. There is some evidence that the speeches, always carefully prepared, were revised for publication, but Demosthenes creates an impression of spontaneity by mixing long periods with shorter, simpler sentences. He tended to avoid hiatus and also runs of more than two short syllables. There is disagreement over how far this was a conscious rather than instinctive practice, but its effect is one of solemnity and dignity. Demosthenes writes in pure Attic Greek, and in narrative passages he regularly employs a plain style of writing; but elsewhere his sentences can be quite complex. He uses repetition, bold metaphors, and colloquialisms, varies his tone, and indulges in the vulgar personal abuse that was popular in his day. It was the combination of simplicity and complexity into a "middle" style that the Augustan critic Dionysius of Halicarnassus regarded as producing the most effective oratory.

The Demosthenic corpus comprises 60 speeches, an *Erotic Essay*, a collection of 56 proems (prefaces, written as models for imitation by his pupils), and six letters; but a number of the private orations, the *Funeral Speech*, and the *Erotic Essay* are spurious. His earliest forensic speech, *Against Aphobus I*, already displays the hallmarks of Demosthenic oratory, with its forcefulness and variety, and a somewhat imperious ethos. Demosthenes continued writing speeches for wealthy clients throughout his life, though he did not appear in person in private cases after the late 350s BC but even private suits might have their political side. He composed *Against Stephanus 1* (349 BC) for Apollodorus, when he was prosecuting Stephanus for perjury on behalf of Apollodorus' stepfather, the banker Phormio. He attacks Phormio bitterly, yet at the original trial in 350 BC he had written *For Phormio*, in which he bitterly attacked Apollodorus. Demosthenes probably changed sides because Apollodorus had begun, like Demosthenes, to advocate the use of the Theoric Fund to finance the struggle against Philip, but centuries later Plutarch criticized his morality.

Demosthenes' forensic speeches cover a wide range of subjects in both private and public cases, and demonstrate a talent for character portrayal and logical argument. One of his best private orations is *Against Conon*, an action for battery brought by Ariston. In a vivid narrative Ariston tells how he first met Conon's permanently drunk sons and describes the fight in which he was nearly beaten to death, though the decent youth cannot repeat the abusive language used by his brutal attackers. Demosthenes is an unashamed patriot, and national character is the underlying theme of many of his most famous speeches, both political and judicial. In *On the Crown* he gives an extended account of his public services and conceals the fact that his policy had failed at Chaeronea by emphasizing Athens' greatness – and his own role as the city's greatest champion.

Demosthenes' patriotic stance against Philip and his judicial defeat of Aeschines laid the foundations for his reputation in the later Classical world and beyond. A full-length biography was composed in the 2nd century AD by Plutarch, who paired Demosthenes with Cicero in his *Parallel Lives*; an extensive life is found in the pseudo-Plutarchan *Lives of the Ten Orators* of the same period; while briefer notices were written by Libanius and Zosimus (one of various scholars of that name living in the 5th–6th centuries AD). In the 9th century Photios wrote a biography based on pseudo-Plutarch, and further biographical details may be found in the *Suda*. This material is generally favourable, and St Nicholas of Myra regarded Demosthenes as the embodiment of virtue, in stark comparsion with Aeschines. But a hostile tradition is represented by Tzetzes, who perversely makes Demosthenes rather than Aeschines the venal politician. Theodore Metochites (1270–1332) similarly compared Demosthenes in part unfavourably to Aclius Aristides, though he regards Demosthenes as the greater rhetorician. Finally, a statue of Demosthenes was placed in the Baths of Zeuxippos in Constantinople and described by the 5th/6th-century poet Christodorus of Coptus.

Demosthenes' speeches were, in the eyes of most critics, the supreme models for imitation. Already in the 2nd century AD they were being drawn on extensively by rhetoricians such as Hermogenes, who calls Demosthenes "The Orator". Hermogenes' use of Demosthenes is highly significant, since later rhetoricians were in turn deeply influenced by him. Tiberius wrote *On the Figures of Demosthenes* in the late 3rd or early 4th century AD; Epiphanius the Syrian, a candidate for the chair of rhetoric in Athens after the death of Julian of Caesarea (*c.*AD 330), wrote a commentary on Demosthenes; and, most famously, in the 4th-century AD Libanius of Antioch wrote *Hypotheses* to the speeches in Constantinople. The *Suda* attributes another commentary to Zosimus. In the 6th century AD Choricius used Demosthenes as a model for his speeches; the curriculum in the schools of rhetoric in this period included the Attic orators, especially Demosthenes, as well as Isocrates and Aeschines, and extensive use of Demosthenes is attested by the numerous scholia – and by the abuse of Demosthenes, along with Homer, Plato, and Aratus, in the hymns of Romanos. The earliest manuscripts of Demosthenes are datable to the 9th and 10th centuries AD, when the revival of interest in the Classics led to further activity by scholiasts. Numerous papyri have also been recovered from Byzantine Egypt (they indicate the position of Demosthenes alongside Homer, Euripides, and Menander as one of the central Classical authors), and Demosthenes' position as the greatest Classical Greek orator and the best source of suitable material for quotations was maintained throughout the Byzantine period to the 15th century. In the 11th century Michael Psellos compared Demosthenes with Gregory of Nazianzus, who synthesized Classical rhetoric and Christianity; while in the 12th century Gregory of Corinth recommended Demosthenes among his models for deliberative and judicial oratory. His rousing *Philippics* in particular have ever since been seized on by politicians: during the War of Independence the *Appeal to the French People* recalled the place of Demosthenes in Greece's glorious past, while in 1827 Lord Cochrane quoted the *First Philippic* to Kolokotronis in an exhortation to unity.

MICHAEL J. EDWARDS

See also **Rhetoric**

Biography

Born into a landowning Athenian family in 384 BC, Demosthenes studied rhetoric under Isaeus and became a professional speech writer. His political career began in 355 BC when he initially advocated peace, against the policy of Aristophon. By 351 BC he recognized the threat to Greece posed by Philip II of Macedon and devoted the rest of his career to warning aginst it. Despite the defeat at Chaeronea (338 BC) Demosthenes remained in office until 324 BC when he was charged with corruption. In 321 BC he fled and committed suicide on the island of Calauria.

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DIALECTIC

Dialectic is variously a practice, a method, and a science in Greek philosophy. The basic precept of dialect is based on conversation – and perhaps disputation – between at least two distinct parties. Dialectic lies at the very heart of all Greek philosophy and represents one of its most characteristic contributions to the sum of human thought.

The modern English word is a near-transliteration of the Greek word *dialektike*, meaning "the art or skill of discussing". Conversational encounters, as the ancient Greeks knew, may consist of unproductive pleasantries, or be hostile confrontations, or serve as mutually productive exchanges between two minds concentrating on the same issue from different initial perspectives. Serious dialectic concerns the latter; but Greek philosophers realized that without proper regulation the exercise could degenerate into one of the other forms of encounter. The more pressing danger came from the tendency to ill-disciplined disputation, which was given the pejorative title of "eristic", or contentious argument.

We learn about dialectic mainly from the practice of Plato's dialogues, where there occur specimen dialectical exchanges interspersed with some comments on sound and unsound method, and more thoroughly from Aristotle's *Topics* and *Sophistici Elenchi*, which describe the practice of dialectic and set out his thoughts on its philosophical purpose and value. Dialectic continued to be studied after Aristotle, particularly by such early Stoic logicians as Chrysippus. However, by this stage dialectic had come to be included in the study of logic, with specific reference to the more pragmatic aspects of the theory of argument; there is little evidence of the actual practice of dialectic from this period. On the other hand, philosophers after Aristotle continued to exhibit a dialectical style in their handling of problems; and to that extent dialectic is an enduring feature of all Greek philosophy, not merely a dominant aspect of its seminal period in the 5th and 4th centuries BC.

In a dialectical exchange there is a clear division of function between two participants – the questioner and the answerer. An issue is proposed: for example, *Is virtue teachable or not?* or *Should we return to people what is their due or not?* The answerer chooses one of the two possible responses, and thereafter answers questions which are designed to lead him to say something incompatible with his original answer. The questioner holds the initiative, but the answerer is at liberty to respond at any stage as he sees fit. Rational insight, and even logical dexterity, are needed if the questioner is to elicit an answer which fails to cohere with the answerer's original response.

Dialectic hinges on winning or losing a contest, and its purpose is to advance the pursuit of truth. These aims were articulated as the exercise progressed, and a sense of their significance always imposed discipline and regulation on its conduct. For example, questions must be clear cut; they must not leave open a plurality of responses beyond a straightforward yes or no. Measures must be taken to avoid or expose ambiguity, whether in a single word or in a larger unit of language; otherwise the value of any particular dialectical response will be uncertain. By these means, those who practised and theorized about dialectical exercises came to assist the creation and development of logic. But all such dialectical rules or sanctions were themselves subject to appraisal and acceptance or rejection within the context of the particular philosophical encounter. Everything was subject to consideration, save perhaps for the very freedom of enquiry which the exercise presupposed.

Plato had a strong insight into the potential of dialectic for the advancement of understanding. He understood that the open-ended, autonomous nature of the exercise made it an ideal method for securing knowledge which was based on deep and sustained conviction. The practised dialectician is able to defend his insights against every kind of attack; and how could there be a better basis than this for anyone to support a claim to have genuine knowledge?

Yet Plato was simultaneously developing stringent criteria defining what was to count as knowledge – for example, that it be not subject to revision, and that it be based on rational reflection. Thus he proposed that dialectic should be a science rather than merely a method. This revision was secured by placing dialectical method on a foundationalist basis; effective practice of the method was to be dependent on a grasp of the truth conveyed by an intuition of the nature of goodness. By using value as the fundamental concept of the science, Plato preserved a Socratic insight into the pervasive philosophical significance of matters of value, whatever particular topic might be under consideration. Nevertheless, the progression of dialectic from a method to a science transmutes an essentially open-ended sceptical stance into a commitment to the pursuit of certainty and truth.

Aristotle sought to restore dialectic to its earlier role as a training exercise and at the same time to establish its connection with the distinct spheres of science and philosophy. The philosophical value of dialectic resides both in its capacity for training and, above all, in its role in the examination of the scientific

axioms. Dialectic can help those who wish to discover first principles; it provides an essential preliminary phase to the operation of axiomatic scientific demonstration. Scientists then take over the task of demonstrating the deductive consequences of these axioms.

Aristotle's practice when engaged in philosophy diverges somewhat from this official position. He begins almost every discussion – both of general topics and of detailed problems within them – with a review of previous views on the given question and an elaboration of the difficulties which are generated if we try to combine them. However, dialectical method dominates the entire discussion of these problems. It is not a preliminary, which will give place to a less tentative phase of enquiry in the subsequent examination. Instead, the teasing out of problems forms the very substance of Aristotelian philosophy, and in this sense philosophy is dialectical through and through.

In Aristotle the theory of dialectic is linked to the studies of logic and of fallacies. Many of the concepts of dialectic – such as argument, deduction, premise, and reduction – are also used in his theory of the syllogism. But logic is independent of the context of investigation, while dialectic is not. The study of fallacies, which Aristotle inaugurates in *Sophistici Elenchi*, is unintelligible without reference to dialectic. For example, the fallacies of many questions and begging the question arise essentially in a question-and-answer context, as their names make clear.

Many philosophers after the ancient Greeks have assigned philosophical significance to dialectic; perhaps the most notable in this company are Kant, Hegel, and Marx. Their very different interpretations and valuations of dialectic all owe much to the accounts of the matter in Plato and Aristotle. Moreover, the cut and thrust of dialectical method is still very apparent in the problem-oriented style of modern analytical philosophy. The original inspiration for this very fertile philosophical idea is firmly rooted in 5th- and 4th-century Greek thought, and it repays study in that context.

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See also **Aristotle; Plato**

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DIALECTS

Those Indo-Europeans who arrived in the Balkan peninsula in the late 3rd or early 2nd millennium BC – whom we may call the Proto-Greeks – were themselves members of a dialectal subgroup of the Indo-European family of languages and peoples. Common linguistic innovations suggest that the ancestors of the Greeks, Indo-Iranians, and Armenians spoke related varieties of late Indo-European. We would expect that even among that body of Proto-Greeks penetrating into the Balkans there was dialectal heterogeneity (if only on the sociological level), since all speech communities are linguistically heterogeneous. Beyond this, however, documentary evidence clearly reveals that by the mid- to late 2nd millennium BC, and much more so in the 1st millennium BC, the Greek language was characterized by distinct dialectal forms.

Before Michael Ventris's decipherment of the Linear B script in the 1950s, scholars had long been classifying the already known dialects of ancient Greek into several groups. With the decipherment of the Mycenaean tablets, yet another dialect was revealed – one that showed close similarities to certain of the post-Mycenaean dialects, though not complete identity with any. As analysis of the Mycenaean texts progressed, an awareness developed of the existence of not one, but two dialects preserved in the Linear B corpus (sec Risch 1966; Nagy 1968; Woodard 1986). Moreover, folding the Mycenaean evidence into the analysis of Greek dialectology of the 1st millennium BC gave rise to speculation that no fewer than four distinct dialects of Greek must have existed in the Mycenaean era (see Cowgill 1966).

Those two attested varieties of Mycenaean Greek have been commonly dubbed "Normal Mycenaean" (since it is the more frequently occurring dialect) and "Special Mycenaean". There are at least four linguistic differences (or isoglosses) which distinguish the two dialects. Normal Mycenaean is characterized by each of the following features: (1) the third declension dative singular ending *-ei*; (2) the development of Proto-Indo-European syllabic nasals into the vowel *o*, in the vicinity of a labial consonant; (3) the change of **e* to *i*, also in the environment of a labial consonant; (4) the "assibilation" of inherited **ti* to *si*. Special Mycenaean, on the other hand, shows a distinct set of developments: (1) the corresponding dative ending is *-i*; (2) syllabic nasals become *a*; (3) **e* is preserved; (4) also preserved is the sequence **ti*. Of the four dialect features characterizing Normal Mycenaean, only one is attested among the known Greek dialects of the 1st millennium BC (the change of **ti* to *si*); otherwise it is the Special Mycenaean isoglosses alone that have survived.

The Greek dialects of the 1st millennium BC are divided into five major groups: Attic-Ionic, Arcado-Cypriot, Aeolic, Doric, and Northwest Greek. Of these, the most familiar to modern students of Greek is Attic-Ionic, consisting of the closely related dialects of Athens and surrounding Attica, and of the Ionians of Anatolia (East Ionic), of the Cyclades (Central Ionic), and of the region of Euboea (West Ionic). Distinct linguistic features of the Attic-Ionic dialect include the change of **ā* to *ē* (the vowel of *eta*), except after *e*, *i* and *r* in Attic; and the process of "quantitative metathesis", whereby certain sequences of *long vowel* + *short vowel* become *short vowel* + *long vowel* (e.g. *ēo* gives *eō*).

Of the Greek dialects of the 1st millennium BC, the one most closely related to the language of the Mycenaean Greeks is Arcado-Cypriot. Though far-flung geographically – its speakers ranging from the central Peloponnese to the island of Cyprus in the eastern Mediterranean – the dialect is internally quite homogeneous. Its uniformity is plainly the consequence of

common ancestry: Mycenaean peoples who, on the one hand, remained or settled in mountainous Arcadia and who, on the other, came as émigrés to Cyprus with the eclipse of the Mycenaean civilization of Greece. The Greek language of Pamphylia in southern Anatolia shows some similarity to this same dialect group. Arcado-Cypriot is characterized by a peculiar development of early Greek labiovelar consonants when they occur before the vowel *i*. Thus, Proto-Greek **$k^{w}$is* "anyone" gives Cypriot *sis* (*tis* in other dialects); Arcadian writes the sound with a special symbol (a form of *san*) – И.

The Aeolic dialect group, like the Ionic, consists of members separated by the Aegean Sea. Lesbian is the dialect of the Aeolian islands and the Aeolian region of Anatolia. Boeotian and Thessalian were spoken in Boeotia and Thessaly respectively; the latter dialect itself is composed of two distinct varieties – Pelasgiotis and Thessaliotis. The Aeolic dialects are characterized by a bilabial development of the labiovelar consonants occurring before *e*-vowels; thus Proto-Greek **penk^{w}e* "five" gives Aeolic *pempe* (cf. Attic *pente*, with the common dental reflex *t*). Within Thessalian, Pelasgiotis and Thessaliotis exhibit two salient differences: (1) the genitive singular of the second declension is *-oi* for the former and *-ō* or *-ou* for the latter; (2) the present infinitive of the *omega*-conjugation is formed with *-emen* in Pelasgiotis, but with *-en* or *-ein* in Thessaliotis.

Doric is that group showing the greatest number of constituent dialects. Distinct varieties from the Peloponnese include Laconian, Messenian, Argolic, Sicyonian, and Corinthian. From the isthmus of Corinth comes Megarian. Greek islands attesting distinct Doric dialects include Crete, Thera, Cos, and Rhodes (with Doric also spoken on the associated Anatolian coast). The various Doric dialects show numerous unique linguistic features as well as features common to both Doric and Northwest Greek, discussed immediately below. Cretan, the best attested of the Doric dialects, shows several specific dialect characteristics, such as a particular propensity for consonant assimilation.

The remaining dialect group, Northwest Greek, is closely related to Doric. Dialects of this type are attested from Phocis, Locris, and Elis. Characteristic of both Northwest Greek and Doric is the preservation of the sequence **ti* (as in Special Mycenaean), without the development to *si* found in other dialects. Elean is interesting in displaying the shift of long *ē* (*eta*) to *ā* – the very reverse of that vowel change distinctive to Attic-Ionic (see above). Also common to Northwest Greek and Doric (Cretan excepted) are the nominative plural articles *toi* (masculine) and *tai* (feminine), rather than the *hoi* and *hai* of other dialects.

Modern scholars have conventionally divided these various dialects into two major groups, East Greek and West Greek, implying some sort of bifurcation in evolutionary descent from Proto-Greek. East Greek subsumes Attic-Ionic, Arcado-Cypriot, Mycenaean, and Aeolic. West Greek is then made up of those two dialects we have already seen to be closely related, Doric and Northwest Greek. The adequacy of this interpretation was, however, called into question by Ernst Risch in 1955 in a careful and probing re-examination of the dialect features that distinguish and bind the regional dialects ("Die Gliederung der griechischen Dialekte in neuer Sicht", reprinted in Kirk, 1964). In summary, Risch argued that the relative antiquity of the various dialect features (isoglosses) must be taken into consideration when determining genetic relationships among the dialects. Those features that place Aeolic within East Greek are relatively late in origin and are characteristic of Lesbian, not Thessalian and Boeotian. Contending that Lesbian acquired these innovating characteristics in conjunction with their development in neighbouring East Ionic, Risch realigned Aeolic, placing it with Doric and Northwest Greek. The resulting dialect structure is then one of South Greek (Attic-Ionic, Arcado-Cypriot, Mycenaean) versus North Greek (Aeolic, Doric, Northwest Greek). The proper genetic grouping of the ancient Greek dialects awaits resolution.

The literary language of pre-Classical and Classical Greek, in its various forms, likewise displays linguistic features that are characteristic of the geographic dialects of the 1st millennium BC. However, the literary dialects are for the most part linguistically artificial. That is to say, they are contrived from elements of different regional dialects and are not themselves identical to any single dialect of spoken Greek – the products of local literary expression that have spread beyond their regional boundaries and have been fused by adapting literary artists. The language of Homer and Greek epic consists chiefly of East Ionic and Aeolic elements, along with bits of Arcado-Cypriot vocabulary. Lyric poetry is composed in several linguistic forms. The Lesbian poets Alcaeus and Sappho write in their Aeolic dialect, but preserve elements of epic language. Archilochus, Solon, and others write in epic dialect, tempered with their own native Greek dialects. The language of choral lyric is fundamentally Doric, though generally unlike any single regional Doric dialect, mixed with Aeolic and epic. Tragedy's dialect is Attic, with elements of Doric, Aeolic, and epic woven in; choral passages are more heavily Doricized (achieved often by the use of long *ā* where Attic has *eta*). Herodotus and earlier prose authors wrote in Ionic. By the end of the 5th century BC, Attic had become the language of prose, though marked Atticisms (such as *-tt-* where Ionic has *-ss-*) tended to be avoided for a time. With the rise of Athenian political prominence, Attic was the widely used prestige dialect throughout the Greek-speaking world; it remains the dialect of the 4th-century prose authors.

Philip II, a Macedonian, chose to install Attic Greek as the official language of his realm. Greek culture and the Attic dialect trailed in the conquering footsteps of Philip's Greek-educated son, Alexander; Attic Greek thus became the lingua franca of Alexander's vast empire. The particular form which this lingua franca developed is that of a modified Attic, usually called Attic Koine or simply Koine Greek. This is the language of the Greek New Testament and of the Egyptian papyri.

Attic Koine displaced regional dialects within Greece, with the result that almost all modern Greek dialects appear to trace their roots to Attic. The notable exception is the dialect of Tsakonian. In response to Slavic incursions into the Peloponnese in the 6th and 7th centuries AD, the Greeks of Laconia are reported to have fled into the rugged mountains of Tsakonia. The modern dialect that developed in this remote area appears perhaps to be a descendant of Laconian, or at least of some form of Peloponnesian Doric which had resisted the influx of Attic Koine.

ROGER D. WOODARD

See also **Language**

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DIO COCCEIANUS *c.*AD 40–112

Orator and philosopher

The life and career of Dio Cocceianus not only form the background to his literary work, but also provide valuable insights into the situation of the Greeks under Roman rule during the so-called "high" empire (1st and 2nd centuries AD). Born into an influential family in Prusa in the province of Bithynia (northeastern Asia Minor), Dio first attained a prominent position as a well-educated Greek intellectual in Rome under the Flavian emperors. When, however, he (apparently) became implicated in the disgrace of a prominent Roman, Flavius Sabinus, under Domitian, he was banned from Rome and his home province; suddenly destitute, he took up the life of a wandering philosopher with Cynic affinities, roaming as far as the very outposts of Greek culture on the northern shore of the Black Sea. With the accession of the emperor Nerva (and his adoptive son Trajan) in AD 96, Dio was able to return to Prusa, where he regained his family's leading position and apparently played a major (though not uncontroversial) role in local and provincial politics until his death. Most of Dio's so-called *Bithynian Speeches* were written during this time and give valuable insights into the numerous rivalries not only within Greek provincial cities but also among them, and into their relations with Roman authorities.

Dio did not confine his public appearances to his home province, but also exhorted a number of other cities in Asia Minor (and even Alexandria in Egypt) to remain true to their former ideals and to keep the peace with each other and within themselves. He also addressed four speeches *On Kingship* to the emperor Trajan, with whom he developed a relationship marked by mutual respect and friendship. Apart from such speechmaking, Dio's oeuvre comprises an astonishing variety of themes and literary forms: essays on moral themes (*On Servitude, On Liberty, On Fate, On Philosophy*, etc.); lively dialogues that often feature the colourful figure of Diogenes the Cynic; treatises on literary subjects (e.g. a comparative study of the three Philoctetes plays written by the great Classical tragedians); a guide to suitable literary models for rhetorical imitation; and even writings on art (the *Olympic Discourse* is centred on Phidias' magnificent statue of *Zeus* at Olympia and the religious awe it conveyed). An especially entertaining part of this production consisted in so-called "sophistic" display rhetoric and treatments of paradoxical themes (the *Praise of the Parrot* is lost, and of the *Praise of Hair* some excerpts were incorporated by Synesius in his *Praise of Baldness*); an impressive tour de force is the *Trojan Discourse To Show that Troy Was Not Captured*, directed against the monumental work of Homer himself (but not really meant seriously, because Dio in many other essays quite happily accepts Homer as a model and teacher). Not all of this enormous production (the transmitted corpus contains 80 items, including two false attributions; but a number of works have been lost, some of which are still cited by their title in the late 10th-century *Suda* lexicon) can be securely dated. A number of works certainly go back to the time before Dio's exile, but the greater part was probably written afterwards (in exile he collected material for a now lost *Getica*, a historical description of this Scythian people).

The wide range of Dio's literary work prompted a lively debate about his exact position within the cultural currents of his times: was he to be reckoned more as a philosopher or as a rhetorician? This debate started soon after his death, and its long duration was one of the marks of his continuing influence: the philosopher Epictetus judged Dio to be only a rhetorician, more intent on form than on content, but Dio's pupil Favorinus regarded him – more positively – as a guiding moral authority even after his death, even seeing him in dreams. Lucian – in *De Morte Peregrini* – placed him beside the philosophers Musonius and Epictetus himself, both of whom suffered exile for their persuasions. In the 3rd century AD the "historian of sophists" Philostratus gave two pictures of Dio not wholly consistent with each other: in his *Life of Apollonius* he made Dio participate in a momentous (but fictional) "Constitutional Debate" with Euphrates of Tyre and Apollonius of Tyana, in the presence of the future emperor Vespasian; in the *Lives of the Sophists* he characterized him as a philosopher-sophist, whose philosophical disposition was clothed in the rhetorical abilities of a Sophist. In the latter part of the 4th century the philosopher-rhetor Themistius mentions Dio within a series of philosopher-advisers of Roman emperors; in the *Lives of the Philosophers and Sophists* of Eunapius, he is similarly ranked as a philosopher. A few years later, a more discriminating and in later times very influential picture of Dio was outlined by the Neoplatonist (and later bishop) Synesius of Cyrene: according to him, Dio set out as a clear-cut sophist, who even wrote strident tracts against philosophy, and only turned philosopher during and after his exile, so that his writings should be carefully divided into pre- and post-exile productions.

The other enduring aspect of Dio's influence was the style and content of his various works which provided stimulants and

stylistic models until the end of Byzantium. Already in Lucian's writings many features of Dio's work reappear. In the 3rd century AD Menander of Laodicea (who was the first to record Dio's later canonical name "Chrysostomus") cites Dio as an example of an easy-running and graceful style, and as such he continues to be read. Our first witness for the importance of Dio in Byzantine times is – as so often – Photios, who in a detailed account in his *Bibliotheca* (Codex 209) not only discusses Dio's life and style of writing but also gives an item-by-item outline of the corpus of his works as it was extant in his day (this, incidentally, is identical with what is still preserved). Soon after, Arethas of Caesarea (though he strangely misplaced Dio by making him a contemporary of Nero and Vespasian and even more strangely explained his surname "Chrysostomus" as a euphemism for "stinking-mouth") not only ensured the ongoing transmission of Dio's works, but also added numerous and rich explanatory notes to the manuscript that was produced on his initiative. Arethas especially commented on those writings of Dio that were to be at the centre of the Byzantines' interests for centuries to come: the speeches *On Kingship*, the *Euboean Discourse* (a charming picture of the simple rural life on Euboea combined with moral advice for the urban poor), the *Borysthenitic Discourse* (a vivid description of Dio's visit to Olbia on the Black Sea and the cosmological myth he told there), and the *Trojan Discourse*. In the 11th century John Mavropous wrote a speech for the emperor Constantine IX that drew on Dio's *Borystheniticus* and kingship speeches; the latter also provided a model for the address to Constantine X written by Theophylact, archbishop of Ochrid. In the 12th century Dio's *Troicus* aroused the ire of John Tzetzes, who severely condemned every attempt *not* to take Homer's *Iliad* allegorically. Even Eustathios, the indefatigable commentator on the Homeric poems, seems to have taken Dio's anti-Homeric tour de force seriously. The last major witness to the Byzantines' unflagging interest in Dio is the essay on him by Theodore Metochites (1270–1332), wherein he subtly compares him to Synesius, Dio's most prominent admirer in late antiquity, and stresses the artfulness of his seemingly simple style. Because, however, even this simplicity moved within the confines of a long since obsolete literary language (the Attic of the 4th century BC), Dio's literary influence ended with the Byzantine empire.

HEINZ-GÜNTHER NESSELRATH

Biography

Born *c.*AD 40 at Prusa, Dio moved to Rome as a rhetorician, but was banished for political intrigue and spent many years wandering about the Greek-speaking world. In 96 he was able to return to Prusa where he played a part in local politics until his death *c.*112. His surviving works, a total of 78, include speeches, essays, and dialogues on philosophical as well as rhetorical topics.

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DIODORUS SICULUS

Historian of the 1st century BC

One seldom encounters a figure so wrapped in the Greek tradition as Diodorus Siculus. Neglected by his contemporaries and often discounted by modern scholars, his work preserves priceless portions of Greek history and historiography. His *Library of History* claims to trace the history of the entire world from creation up to Diodorus' own days, formally ending with Caesar's consulate in 60 BC. Of Diodorus himself we know little, except for what we can glean from this work, which he claims was 30 years in the making. He was a native of Agyrium in Sicily, visited Egypt around 60–56 BC, and had some familiarity with Latin and Rome. The last event he mentions seems to be from 36 BC. Apart from ethnographic excursions in the early books, Diodorus' focus is almost entirely on Greece, Rome, and Sicily. Of the *Library's* 40 books only 15 survive intact (1–5, 11–20), as well as substantial fragments from the remaining 25. These remains form the largest corpus of Greek history to survive from antiquity to our own day.

Diodorus' *Library* provides an intriguing glimpse into many varieties of Greek historical writings that would otherwise be largely unknown to us. The *Library* incorporates – relatively faithfully and relatively uncritically – a vast amount of otherwise lost literature in abridged form. After a brief account of the creation of the world, he gives an ethnography of Egypt, mostly from Hecataeus of Abdera; a legendary history of Mesopotamia, from Ctesias; and an account of India from Megasthenes. He then gives copious summaries of myths, canonical and deliberately outrageous, relying on Dionysius Scytobrachion and several others. In subsequent books he preserves tales about the Seven Sages, legendary lawgivers, and Themistocles, giving us a

window into Greek traditions. His version of the Peloponnesian War and its origins, based on Ephorus and possibly Philistus, provides an interesting contrast to Thucydides. Diodorus provides our only continuous narrative of the history of 4th-century BC Greece, including book 16, which is devoted entirely to Philip II of Macedon. Book 17 is the earliest continuous surviving narrative of the campaigns of Philip's son Alexander, an account possibly adapted from Cleitarchus. Books 18–20, based on the work of Hieronymus of Cardia, are our best source for the wars of Alexander's successors. In addition to all of this material, Diodorus often shifts the scene and discusses contemporary developments in his native Sicily, using the histories of such fellow Sicilians as Timaeus and Philinus. It has been aptly said that a history of that island would be impossible without Diodorus. Later fragments, including a large narrative of the Sicilian Slave War of *c.*136–132 BC, may ultimately derive from the work of Posidonius. In addition to many historical works, mythographies, and ethnographies, Diodorus summarizes at least one novel, *The Islands of the Sun* by Iambulus.

Diodorus' intent was to produce an all-encompassing, chronologically accurate, handy compendium of world history. He was neither a deep historical thinker nor an adept prose stylist. He avoids elevated language and overtly strives for a monotonous consistency in style. These considerations – combined with the patently derivative nature of his work – kept him from gaining acclaim or respect among his Augustan contemporaries. He is first mentioned in a backhanded compliment from Pliny, who notes that the *Library* of Diodorus, unlike most second-hand anthologies, has an honest title. However, generations of Greeks found his compendium so useful that it was preserved, while almost all other Hellenistic prose literature – stylistically out of fashion – was consigned to oblivion. Aelian was apparently familiar with him and Athenaeus cites him. He receives copious praise and use from chronographers and writers from Eusebius in the 4th century AD to John Tzetzes in the 12th. These writers valued utilitarian history over good style or subtle theories of causation. Chronographers clearly also appreciated Diodorus' original integration of Roman and Greek chronology: even today he remains our earliest and most important source for the Roman *Fasti Consulares*. Diodorus was not always successful at synchronizing the Roman calendar with the Athenian one, and his work suffers from the embarrassing lapses one would expect from such a vast, self-published encyclopaedia. In the *Library* events are rigidly divided annalistically by archon and consular years, often interrupting the narrative and resulting in doublets and confusion.

In the Byzantine empire Diodorus' vision of a historical reference book seems to have found kindred spirits. Diodorus was summarized by Photios (Codex 70) whose praise is particularly effusive, complimenting his clear and unaffected style as well as his historical acumen. Another index of Diodorus' later popularity is the note in the *Suda* that Diodorus lived past the reign of Augustus, which possibly indicates a posthumous continuation of his work. Large fragments of lost books of Diodorus are preserved in the excerpts compiled under the direction of the emperor Constantine VII Porphyrogennetos (913–59), divided into convenient sections ostensibly for the purpose of ready reference by statesmen and scholars. The rediscovery of Diodorus in the west was also greeted with enthusiasm by a Renaissance reading public eager to learn more of the Greek past. This enthusiasm became muted in the following three centuries as Diodorus' intellectual poverty, his often compressed and muddled narrative, and frequently faulty chronology became more apparent.

Increasingly scholars are exploring the complex relationship between Diodorus' text and his sources. Even where it can be shown that Diodorus is rewriting earlier narratives, simply abridging and changing the style, he also adds his own interpretations and emphases. These interpretations, as well as the grand design of the work, provide an interesting picture of one Greek's view of history from a small town in Sicily during the Augustan era.

KENNETH MAYER

Biography

Born at Argyrium in Sicily, Diodorus "the Sicilian" wrote a world history from the creation down to his own time, ending in 60 BC. He visited Egypt *c.*60–56 BC after which he may have settled in Rome, completing his history *c.*30 BC. Of its 40 books only 15 survive intact, plus fragments of the rest. Despite many inaccuracies his work remains of value.

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DIOGENES LAERTIUS

Biographer of the 2nd or 3rd century AD

Diogenes Laertius is the author of an extant compendium on the lives and doctrines of ancient philosophers that comprises ten books. In addition to this work, he wrote epigrams and he implies (1. 39) that he published a separate collection of them entitled *Pammetros* (Poems in Various Metres) in at least two books. Some of these epigrams on various philosophers are quoted in his historical work. Nothing is known about the author himself and the few references to himself in his work do not reveal much. There is no secure dating either of him or

his work. The usual practice is to date him on the basis of the philosophers that he mentions (and does not mention). The latest figures that Diogenes refers to are Sextus Empiricus and Saturninus, both of them Pyrrhonian sceptics usually dated in the late 2nd century AD, while he does not mention any Neopythagorean or Neoplatonist philosopher. He probably lived in the late 2nd or early 3rd century AD. We know nothing of Diogenes' education, where and with whom he studied philosophy for instance, and his philosophical allegiance is a matter of speculation. Neither do we know anything about the composition of his work except that it was apparently dedicated to a lady who had an interest in Plato (3. 47).

Diogenes begins with a general introduction in which he deals with some elementary questions such as the rise of philosophy, the spread of philosophy among the Greeks, and the main philosophical divisions. He advocates the idea that philosophy was a Greek and not a barbarian invention, despite certain intimations of wisdom among barbarian nations. More importantly, in his prologue Diogenes introduces two notions that are crucial for the arrangement of his entire work, namely the notion of succession (*diadoche*) and that of a philosophical sect (*hairesis*). He arranges philosophers in two main successions, the Ionian and the Italian. The Ionian succession starts with Anaximander (going back to the Seven Sages) and goes down to the Stoics through Socrates, Plato, and the Peripatetics (it covers books 1–7), while the Italian succession starts with Pythagoras and continues with the Eleatics and the Atomists to end with Epicurus (books 8–10). Diogenes also distinguishes between dogmatic and sceptic (ephectic) philosophies. Then, following ancient doxographical literature, he gives us a list of the various philosophical sects and the names of their founders. Philosophers who do not belong to a sect and are only part of successions, like the Presocratics, are dispersed in various parts of the work.

The work seems finished as we have it (cf. 10. 138) but book 7 appears incomplete in the existing manuscripts, which leave off in the middle of a title in the list of Chrysippus' works. Each section in Diogenes' works has two main components, the biographical and the doxographical. Diogenes tends to follow a certain order in the arrangement of his material (origin, education, place in succession, sayings, anecdotes, works, doctrines, documents, other men with the same name). His usual practice is to give only the doctrines of the founder of the school, ignoring the additions and variations brought up by the successors. The sole exception is the Stoic school (book 7). The idea is that the founder's doctrines determine the philosophical point of the entire sect. Plato and Epicurus occupy one book each; Zeno the Stoic also enjoys an extensive presentation. The account of Plato presents clear similarities with Middle Platonist treatises of the 2nd century AD such as Albinus' *Isagoge* and Alcinous' *Didaskalikos*. The lists of works that Diogenes gives are invaluable since they tend to be quite comprehensive. Nevertheless Diogenes himself is unlikely to have consulted the original works of the philosophers he discusses, though in the case of Epicurus he cites three original Epicurean texts.

Diogenes' treatment of the various philosophers and philosophical schools is very uneven, and this obviously reflects the state of his sources. As far as the biographies are concerned, some of them consist of just anecdotes and apophthegms (Thales 1. 22–44, Polemo 4. 16–20), some contain only doxography (Anaximander 2. 1–2, Leucippus 9. 30–33), some are very long and well informed (Plato 3, the Stoics 7), others are very short (e.g. Aristotle 5. 28–40). As far as his doxography is concerned, the Stoic one is clearly the best of his whole work, whereas Aristotle's doxographical section is very poor in extent as well as in quality.

The problem of Diogenes' use of the sources is a complicated one. He does not seem to follow any one principal source in his work, and in most cases he uses more than one authority, which he usually names. His principal sources are Antigonus of Carystus, Sotion, Hippobotus, Hermippus, Favorinus, Apollodorus of Athens. Like his sources, Diogenes' technique is to combine and excerpt various authorities (cf. 4. 1, 10. 29). This, however, does not mean that his book is merely patchwork. There is a clear structure behind the whole work, and there are also certain features that characterize his authorship. Yet the use of sources often determines Diogenes' reliability, which varies considerably from book to book and from section to section.

Diogenes' work is definitely a bad history of philosophy by our standards. The author is uncritical about the doxographical material that he reproduces; he does not venture any personal comments; the quality of his information varies considerably; and he has little sense of history. Yet Diogenes did not mean his work to be a history of philosophy in the modern sense. His intention was to present philosophers rather than their philosophy or the historical development of philosophy. His work is chiefly indebted to the genres of successions (*Diadochai*) and of philosophical sects (*Peri haireseon*) that provide the main components of his work, namely the historical-biographical part and the systematic doxographical part respectively. Yet it is difficult to classify Diogenes' work under a specific genre since, for all we know, no earlier work is exactly like his.

Diogenes' work is invaluable today because it is so rich in material from sources that have been lost. This is the only work of its kind that has survived intact from antiquity. Many Hellenistic sources are principally or solely known from Diogenes. His account of Stoic logic, for instance, is important for the reconstruction of Stoic logic. His work is not mentioned by later ancient sources. It seems, however, that it was used by the Byzantines. Stephanos of Byzantium (6th century) quotes Diogenes. The Byzantine lexicon of the *Suda* (10th century) draws heavily on his work for its philosophical entries. Furthermore the compiler of the *Anthologia Palatina* also knows and makes use of Diogenes.

GEORGE E. KARAMANOLIS

See also **Biography**

Biography

Diogenes probably lived in the late 2nd or early 3rd century AD but nothing is known of his life or background. He wrote an extant work in 10 books entitled *The Lives and Opinions of Eminent Philosophers*. He also wrote a (lost) collection of epigrams, some of which are quoted in the *Lives*.

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DIOGENES OF SINOPE

Philosopher of the 4th century BC

The oddest group of philosophers in ancient Athens were the Cynics, the dogs of philosophy, whose best-known representative was Diogenes of Sinope. It is not merely that people found (and still find) it easy to make fun of their way of life, for Athenians also poked fun at Socrates (most notably portrayed as a woolly-minded thinker and teacher of sophistries in Aristophanes' *Clouds*), Plato (also a target of comic poets), and Epicurus (whose moderate hedonism was exaggerated beyond recognition). Their oddity lies in the fact rather that they were considered philosophers at all, given that their odd way of life was based on a kind of return to nature that seems antithetical to the reasoned arguments of philosophy such as were found in Plato's Academy, Aristotle's Peripatos, Epicurus' Garden, and Cleanthes' Stoa. As Antisthenes, the first Cynic, said, "Virtue lies in action, not arguments or learning", requiring nothing more than "Socratic strength". Ideology, then, or movement, rather than philosophy, better describes ancient Cynicism.

Humankind is not only unique among creatures in being capable of advance through intellect and technology, but in also being capable of arguing that it has gone too far and should regress and, to quote a Cynic, "live in accord with nature". One finds the germ of this implicit in the general Greek belief that life need not be luxurious and that one can be happy without the fancy clothes, perfumes, and food of the Persians and Lydians. Socrates, Aristotle, and others specifically argued that wealth contributes nothing of essence to true happiness. It was the Cynics, however, who set out the results of their animal studies showing that mice and dogs seem happy without clothes, fancy food, and any but the most primitive housing, and, perhaps most significantly, with little in the way of social niceties. If dogs can snarl, why should humans gloss over the truth with social pieties?

The Cynics' status as philosophers was maintained, presumably on the basis of their arguments for their way of life, but none of their undoubted philosophical writings are extant (except for some spurious letters). What we have instead is primarily a series of telling, Zen-like, anecdotes designed to demonstrate in summary fashion the Cynics' attitude towards themselves and their fellow humans. Anecdotes of this sort are usually to be treated with great distrust, since all conform to the new Hellenistic fondness for literary biography; if used cautiously, however, they probably do paint a generally true picture of the Cynics' manners and teaching technique. Many of those anecdotes ascribed to Diogenes, moreover, depend upon a wicked (i.e. cynical) love of verbal play (almost always lost in translation) which grants them greater credence. In front of two badly painted Centaurs, for example, Diogenes asks "Which of them is Cheiron?", the famous Centaur whose name can also be read as *cheiron*, "worse".

The origin of the school was traced to Antisthenes, a follower of Socrates who was present at his death. It may well have been that the Cynosarges (White Dog) gymnasium where Antisthenes taught originally suggested the name Cynic for the school associated with him, but the association with dogs was one that the Cynics themselves would happily embrace. From Socrates, Antisthenes learned to emphasize the teaching of virtue for man's happiness; he also learned to emulate Socrates' endurance of physical hardship, raising this, as Socrates did not, to a tenet of his moral philosophy. Diogenes extended this to such an extent that he was said to be "Socrates gone mad".

Whether Antisthenes actually called himself a Cynic and whether others so regarded him is disputed. There is no doubt, however, that Diogenes, from the town of Sinope on the Black Sea, became and remains today even in popular belief the Cynic par excellence: living in a pithos (a large ceramic vessel) which he chilled in winter and heated in summer, eating without utensils, and snarling in mock canine fashion at all who approached him civilly, he outdid Timon of Athens in misanthropy. A particularly apt biographical anecdote has him forced to flee Sinope for having debased the coinage, erroneously having taken an oracle of Apollo too literally: it was rather the metaphorical coinage of civility that he was meant to debase. In Athens, the natural place for a philosophically inclined youth to visit, he fell in with both Antisthenes and Plato. With the former he developed his cynical ideas; to the metaphysical and political views of the latter he developed a marked antipathy which shows up in many of the stories. When, for example, Plato defined man as a featherless biped, Diogenes held up a plucked chicken as something that met the two criteria. Plato's theories of Ideas came in for even harsher criticism. It is usually assumed that Diogenes' *Republic* was written to counter and doubtless to mock Plato's *Republic*.

Whether Diogenes did in fact write this or any other work is a matter of dispute, however. Whereas sonic sources specifically say that he wrote nothing, others not only list the genres in which he was said to have written, they also quote passages from them. In addition to philosophical dialogues and epistles, Diogenes is credited with tragedies in which he seems to have defended strange positions. In the *Atreus*, for example, the eating of human flesh was shown in a favourable light, just as Diogenes seems to have argued in his prose.

It is understandable that anyone who called himself a Cynic would regard Diogenes as a model. Suitably tempered, however, Cynic ideas of endurance, self-sufficiency, living in accord with nature, and deriving pleasure from the bare necessities of life proved attractive to other schools of philosophy, especially the Megarians, Stoics, and Epicureans. Diogenes' skilful manipulation of words, moreover, provided a model for such Cynical writers as Menippus, Meleager, and Cercidas

among Hellenistic Greek writers, and, among the Romans, Seneca, whose *Apocolocyntosis*, a biting satire in both prose and poetry on the emperor Claudius, was modelled on Menippus' satires.

DAVID SIDER

See also **Cynics**

Biography

Born towards the end of the 5th century BC in Sinope, Diogenes was the archetypal Cynic philosopher. Exiled some time after 362 BC, he moved to Athens where he associated with Antisthenes and Plato. Living as close to nature as possible, he took shelter in a *pithos* and behaved like a dog. His writings have not survived. He died in the 320s BC.

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DIONYSIUS I *c.*430–367 BC

Tyrant of Syracuse

The most significant Greek ruler before the great Macedonians, whom he prefigured in many respects, Dionysius belonged to the upper class of Syracuse in Sicily. The most powerful of western Greek cities, Syracuse resembled Athens in some ways, except for the political instability that characterized it in common with most other Siceliot cities – constitutional government tended to alternate with lengthy periods of tyranny. A number of factors were responsible for this, the most important being the ever-present danger of conquest by Carthage. The establishment of Dionysius' autocracy was the direct outcome of the large-scale Carthaginian invasions of Sicily of 409 and 406 BC. His rise to power was a classic instance of how tyranny could be achieved through demagogy, and it is cited as such by Aristotle in the *Politics*. Threatened by the complete collapse of Greek Sicily in the face of the advancing Carthaginian army, the people of Syracuse elected Dionysius first as a general and then as sole general with full powers to deal with the danger that threatened. Shortly afterwards he tricked the army into providing him with a bodyguard, and instead of a saviour Syracuse found itself saddled with a master. Some time passed, however, before Dionysius was firmly in control and during this time he withstood two revolts, the first by the aristocratic cavalry and the second by the people in general. The latter revolt was suppressed, it would appear, with the help of Sparta. This marked the start of close cooperation between Sparta and the tyrant that served the interests of both, but gained Sparta much opprobrium. Between the revolts Dionysius signed a treaty with Carthage whereby the Carthaginians were left in control, whether direct or indirect, of most of Sicily, including all the Greek cities they had captured, while the tyrant was confined to little more than Syracuse (405 BC).

During the next few years Dionysius first extended his rule in eastern Sicily and then embarked on a programme of massive rearmament aimed against Carthage. Clearly he had not intended the settlement of 405 BC to be of any permanence. We hear of new types of warships and war engines being invented at this time. Launched in 398 BC, his attack on Punic-controlled Sicily met with initial success, including the capture of Motya, the Punic stronghold in western Sicily. He was then, however, forced to retreat after a counter-attack and, when his fleet was defeated off Catane, he found himself besieged at Syracuse. At this critical juncture a plague killed many of the besieging forces. Attacking, Dionysius destroyed most of the Carthaginian fleet and then, as a result of a secret deal (or so we are told), allowed the Carthaginians themselves (as opposed to their allies and mercenaries) to sail away with what remained of their navy (396 BC). Though seriously weakened by his reverses, he recovered quickly and was able to check another Carthaginian campaign initiated in 393 BC. A stalemate having been reached, a new peace treaty was concluded (392 BC) which was much more favourable to the tyrant: all Greek Sicily was to be under Dionysius, and Carthage retained only the western corner of the island.

It was now the turn of Greek Italy. By a combination of military victories and clever diplomacy Dionysius soon succeeded in weakening the Italiot League and, having come to terms with it, in capturing Rhegium, a bitterly hostile city. He thus gained control of the strait of Messana, and annexed to his territories the whole of the toe of Italy. By 387 BC he was free to send to the Aegean a strong naval squadron to assist Sparta and Persia in imposing on Greece the infamous King's Peace. The 380s BC also witnessed the expansion of Dionysius' empire into the Adriatic, where he planted colonies and formed an alliance with the Illyrians. His main aim must have been the acquisition of vital resources in men, but above all of materials. A punitive raid in strength against the Etruscans (*c.*384 BC), traditional allies of the Carthaginians against the Greeks, must also have been motivated by a wish to improve his finances further, in preparation for another war with Carthage.

The Third Carthagianian War broke out in 383 BC and continued well into the 370s BC. It was fought by Dionysius on two fronts, in Sicily as well as in Italy, against both the Carthaginians and the Italiots who made common cause with Carthage. It is unfortunate that our main source for Dionysius (Diodorus Siculus) chose to give only a very brief and vague summary of what clearly was a major conflict. Victory went to Carthage. In the treaty that ended the war Dionysius was forced to recognize Himera as well as all Greek land west of the river Halycus as belonging to Carthage. He also had to pay a heavy indemnity. There was to be yet a Fourth Carthaginian War. Carthage, weakened by plague and a revolt of its subjects, invited attack by Dionysius in 368 BC. By then he

had recovered sufficiently to be able to send mercenary forces to aid the Spartans (hard pressed after the disaster at Leuctra in 371 BC) at the same time as fighting Carthage. As in 398 BC, initial success was followed by reverses. Having concluded a truce in the winter, Dionysius died in the following year (367 BC). His son and successor Dionysius II subsequently made peace with Carthage on the same terms as his father in the 370s BC.

Though clearly a tyrant in the traditional Siceliot mould, characterized above all by disregard for convention and in holding life cheap, Dionysius nevertheless was a military despot on an altogether grander scale. In the level and range of his activities he bears comparison with the Hellenistic rulers, not least in the way he prepared for and waged war, on both land and sea. Here he was way ahead of his time. Brave, energetic, ambitious, cultivated (he was a poet of some ability), resourceful, with few scruples to inhibit his actions, Dionysius exercised absolute control over a much larger area and population than any other Greek before him. In an age when oligarchy and monarchy were viewed with ever-increasing favour by the Greek intelligentsia at the expense of democracy, Dionysius' one-man rule could not fail to attract attention. No less a thinker than Plato took the trouble to visit the tyrant, and the influence that Dionysius exerted on Greek political philosophy, for better or worse, is one of his main, if rather intangible, legacies. On the one hand Dionysius can be said to have stemmed, temporarily at least, the advance of Carthage in Sicily. His policies, on the other hand, all calculated to increase and maintain his power, especially his reliance on (mostly barbarian) mercenaries and the wholesale destruction of Greek cities and the transplantation of their populations, undoubtedly undermined the morale and sapped the stamina of western Hellenism.

P.J. STYLIANOU

Biography

Born *c.*430 BC, Dionysius came to power in Syracuse in 405 BC as a direct result of Carthaginian attacks on Sicily in 409 and 406 BC. Consolidating his position with the help of Sparta, he made himself master of all Greek Sicily, confining Carthage to the western corner. He then (387 BC) extended his influence into south Italy as far as the Adriatic and was active against the Etruscans. After further fighting with Carthage he died in 367 BC and was succeeded by his son Dionysius II.

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DIONYSIUS OF HALICARNASSUS

Historian of the 1st century BC

In the second half of the 1st century BC a literary trend developed which was to have the greatest impact on the future course of Greek literature down to the Byzantine age and even beyond. It was the time of the quite spectacular breakthrough of Atticism, according to which speeches and literature should be modelled after the great authors of Classical, i.e. pre-Hellenistic, times. Most prominent among the initiators of this movement were the rhetoricians and historians Caecilius of Caleacte and Dionysius of Halicarnassus.

When Dionysius arrived in Rome in 30/29 BC, the capital had already become a centre for Greek intellectual activity. Dionysius does not seem to have had any difficulties in finding Greek and Roman friends and patrons, among whom Caecilius was the most remarkable literary figure and Quintus Aelius Tubero, jurist, annalist, and father of two consuls, the most influential political personality. Dionysius wrote many rhetorical and critical treatises for these friends and was a private teacher to their sons. But he devoted most of his time to composing his monumental work on early Rome, the *Roman Antiquities*.

In the preface to his study *On Ancient Orators* – a singular manifesto-like text – Dionysius unfolded a tripartite conception of history: the heyday of the "old philosophical rhetoric", he declared, was followed by a period of decay after the death of Alexander the Great, but the time in which he lived saw a powerful revival of the time-honoured "Attic" rhetoric. Dionysius attributed this change to the influence of Rome and its well-educated elite. In this conception, the orators and authors of the good, older time were regarded as classical models with normative power, whereas the whole literature of the Hellenistic period he rejected as "Asianic". In order to produce good speeches and literature, so Dionysius argued, one had to turn to the classics and imitate them. In his rhetorical and critical studies Dionysius attempted to show which authors were worthy of imitation (*mimesis*), how imitation should work, and which qualities in particular should be espoused, and which mistakes avoided. Dionysius thus proposed an eclectic procedure combining the good qualities of several Classical authors and at the same time avoiding all their flaws. By this means one could hope to rival the classics or even to surpass them. Dionysius took it for granted that the Classical authors had already proceeded in this way themselves: most successful of all the Attic orators, according to Dionysius, was Demosthenes, whose "mixed style" he therefore preferred.

The tremendous success of Atticism is clearly illustrated by the fact that, whereas Hellenistic literature was for the most part lost (except for some more technical works handed down because of their content), the works of the Classics (as well as those of the Classicists) have been preserved to a remarkable extent. This was possible only because Classicism was readily embraced and disseminated by the rhetorical schools. As far as we can see, it is in Dionysius' treatises that literary criticism is for the first time pursued not primarily as a means to explain a given text or author but almost exclusively in order to provide material for imitation. It is obviously for their practical value that these critical studies have often been read and thus have mostly been preserved. In the 1st century AD they were cited several

times by the Roman rhetorician Quintilian, and the unknown author of *Peri Hypsous* (On the Sublime) clearly knows them, although there is no explicit reference. For instance, the latter used the critical device developed by Dionysius of rewriting a certain passage in order to show how important its rhythm is. The unknown author of the pseudo-Plutarchean treatise *On the Ten Orators* uses many passages from Dionysius without indicating his source, whereas an anonymous commentator on book 2 of Thucydides replies to some of the criticism made by Dionysius in his study *On Thucydides* (P.Oxy. 853; 2nd century).

In the 2nd and 3rd centuries AD Atticism became increasingly concerned or even obsessed with the purity of language. Purists of the time would accept only the vocabulary and the syntactical formations found in the Attic authors. For Dionysius and Caecilius, Atticism had been primarily a matter of style, but clearly the purism of the Second Sophistic would not have been possible without the success of stylistic Atticism. Indeed, in the 9th century the patriarch and scholar Photios was to criticize Dionysius' use of neologisms (cod. 83), which were, of course, profoundly antipathetic to purists. Nevertheless, Dionysius' treatises continued to be used – for example, by the rhetorician Hermogenes, still in the 2nd century – although direct references are rare, and even more extensively with many direct citations by his commentators, namely Syrianus (4th/5th century). As the Hermogenic corpus became the standard rhetorical textbook for the whole Byzantine period and was still much in use in the Renaissance, Dionysius' authority remained unquestioned throughout the centuries. He was read by the rhetorician Libanius and the sophist Lachares (4th/5th century). An anonymous rhetorician, perhaps John Doxapatres (11th century), was a particularly fervent admirer, as he calls Dionysius "the master and good father of our art". Another anonymous rhetorician of the 10th/11th century, who wrote a commentary on Hermogenes, cited passages from many different treatises and seemed to know the whole of Dionysius' critical work. John Sikeliotes (12th century), a better-known commentator on Hermogenes at the time, refers directly to Dionysius. Epitomes have been made of the studies *On Imitation* and – probably in the 10th century or perhaps by Maximos Planudes (13th century) – *On Stylistic Composition*. The latter work was also widely used by Psellos (11th century), whose study *On the Composition of the Parts of Speech* consists to a large extent of extracts from it.

Of the 20 books of the *Roman Antiquities*, books 1–10 have been preserved entirely and book 11 partly. Books 12–20 survive only in excerpts, about one half of them from the collection made of Classical and later historians by order of the emperor Constantine VII Porphyrogennetos (10th century), and the other half from an epitome preserved in a 15th-century manuscript. According to Photios, who could still read the complete work (cod. 84), Dionysius had himself made an epitome in five volumes. The history extends "from the oldest myths . . . to the beginning of the First Punic War" (1. 8. 1f), i.e. the year 264 BC, with which Polybius' history begins. Dionysius designed the *Antiquities* as a model for what can be produced by eclectic *mimesis*, but he also had a political message and an educational aim: he attempted to show that Rome was in fact a Greek foundation, Latin a Greek dialect, and the early Romans indeed Greeks – not only ethnically, but also in terms of their high moral standards. Dionysius thus justified Roman rule over the Greeks and at the same time presented Roman statesmen of the past as models for those of the present. Dionysius wished to be an educator like Isocrates, aiming to teach both good behaviour and good speaking.

The *Roman Antiquities* seems to have been quite popular, although direct references are few. Josephus' *Jewish Antiquities* in 20 volumes is obviously modelled on it, as are some aspects of his style. Plutarch used it for some of his *Lives*; in some cases (e.g. for the *Coriolanus*) it was his main source. Appian and Cassius Dio also seem to have referred to the *Antiquities*, though perhaps through an intermediary source. As a note by an anonymous writer in the earliest manuscript of Appian makes plain (cod. Vat. graec. 141; 11th/12th century), the account of Italian history and the earliest history of Rome were the most popular parts (hence perhaps the loss of the later books). In the Byzantine period the *Roman Antiquities* was used by Constantine Manasses, who drew on it for his *Chronike Synopsis* (12th century), as did John Kanabutzes (15th century) for his little geographical-historical miscellany *In Dionysium Halicarnassensem Commentarius*.

Over the last 200 years Dionysius has often been criticized and even despised for his hated Classicism and his positive approach to Rome. It should be borne in mind, however, that his Isocratean ideal of education (*paideia*), based on a sound knowledge of the Classical authors, proved to be one of the most important and persistent factors of Greek elite identity for many centuries.

THOMAS HIDBER

See also **Rhetoric; Second Sophistic**

Biography

A native of Halicarnassus, Dionysius moved to Rome in 30 BC where he taught rhetoric for many years. He also wrote many works of literary criticism, notably on Thucydides and the Attic orators. But his principal work was entitled *Roman Antiquities*, a history of Rome from its beginnings to the start of the First Punic War (where Polybius begins), in 20 books, of which books 1–10 survive intact, book 11 in part, and the rest only in excerpts. His thesis was that Rome was a Greek city, Latin a Greek dialect, and Romans really Greeks.

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DIOSCURIDES fl. *c.*AD 45–75

Physician

Pedanius Dioscurides of Anazarbus in Roman Cilicia (southeastern Asia Minor) wrote *On Materia Medica*, one of the more influential pharmacological works of the pre-modern period. The preface suggests that he studied under Arius in Tarsus and that he travelled extensively to collect information on the medicinal uses of plants, animal products, and minerals. His journeys probably took him to many of the places mentioned in his work, including much of Asia Minor, the Greek mainland, northern Egypt, Syria, Crete, Cyprus, and the Nabataean capital Petra. Following earlier traditions, he also described exotic substances from more remote areas (including Britain, Gaul, Iberia, Ethiopia, Armenia, and India), few of which he is likely to have visited. His explicit association of his pharmacological odyssey ("traversing much of the earth", Preface 4, an echo of *Odyssey*, 4. 268, 2. 364, etc.) with a "military" or "soldierlike life" prompted later writers to draw the controversial inference that he had been a physician in the Roman army.

Several other extant Greek texts are attributed to Dioscurides by later ancient writers and by Byzantine authors and scribes. These include *On Noxious Drugs, On Venomous Animals*, and *On Simple Drugs* (also transmitted as *Euporista*, "Readily Accessible Remedies"). A modern critical consensus has, however, rendered their authenticity doubtful.

In scope, thoroughness, and detail, Dioscurides' *On Materia Medica* probably exceeded its many ancient predecessors. He discussed the medicinal properties of more than a thousand natural substances (about 800 of these botanical, the rest mineral and animal), and recorded well over 4,000 uses for them, whereas the works attributed to Hippocrates, for example, had referred to fewer than half as many substances. In his preface Dioscurides criticizes different predecessors by name for different flaws: omitting useful substances, imprecision, false information, second-hand knowledge, and poor structure, resulting in works that are impossible to memorize. His own work, he promises, will be superior in its completeness, accuracy, organization, systematicity, and detailed personal observation, with careful attention to topography, climate, seasons, and local botanical variations, as these pertain to the collection, cleaning, preparation, preservation, and storage of drugs.

Dioscurides' predecessors had listed pharmacological substances under individual disorders (e.g. Hippocratic Corpus) or alphabetically (Crateuas) or according to external, often morphological characteristics (Sextius Niger), whereas the sequence adopted by Dioscurides in his five books is as follows: (1) aromatics, oils, ointments, trees, shrubs; (2) animals, animal products (honey, milk, fat), cereals, vegetables, garden herbs; (3) roots, botanical juices, further herbs, seeds; (4) further roots and herbs; (5) wines, other potables, minerals. The organizational principles that prompted this arrangement are far from transparent, but a recurrent structural device might be grouping together substances according to affinities displayed by their *dynameis* (usually translated "properties"), i.e. by their "powers" to act upon something, for example, by having a heating, softening, astringent, diuretical, drying, cooling, "ripening", somniferous, relaxing, dispersing, aphrodisiac, or antaphrodisiac effect. In all, he identifies more than 300 kinds of qualitative medicinal effects. Yet Dioscurides never explicitly claims such similarities in the "power to effect" as the principle that informs his overall arrangement, and some later readers, not recognizing any consistent, clear structure, reorganized his text to give it a more accessible arrangement. An alphabetical version, probably produced between the 2nd and 4th centuries AD, is extant in a 6th-century manuscript (the "Vienna Dioscurides", see below) and in later manuscripts.

A subsidiary ordering sequence, discernible in the botanical sections, is testimony to Dioscurides' attempt at thoroughness. One chapter is devoted to each plant, and within each chapter the following pattern tends to be maintained: name of the plant; synonyms; typical location; botanical description, medicinal properties; preparation and application; occasional references to harmful side effects; dosage; collection, processing, and storage; forgeries and how to detect them; at times, veterinary, magical and non-medical uses; sometimes geographic distribution.

Each botanical chapter was probably also accompanied by an illustration of the plant, as in the earliest surviving Greek manuscript, the "Vienna Dioscurides". Now in Vienna (Österreichische Nationalbibliothek) this manuscript preserves an alphabetical version of Dioscurides' work. Copied in AD 512–13 in Constantinople for Princess Anicia Juliana, daughter of Placidia the Younger and of the western emperor Olybrius, the Vienna Dioscurides is the most lavishly produced of extant Byzantine scientific manuscripts, preserving almost 500 miniatures, mostly full-page paintings of plants. Different visual traditions are, however, discernible in the manuscript tradition, and it is unclear which, if any, of these derive from Dioscurides' original work. In the Vienna Dioscurides art historians have

differentiated between a more abstract group of illustrations and a more naturalistic group, and a Neapolitan manuscript of the 7th century AD (now in the Biblioteca Nazionale, Naples), containing 403 plant illustrations of an inferior quality, also appears to represent more than one visual tradition. Illustrated pharmacological and other medical works none the less are well attested at least from the Hellenistic period and, modern expressions of doubt notwithstanding, it is likely that Dioscurides' original text, too, was illustrated.

The high regard in which Dioscurides' *On Materia Medica* was held in the Greek world until the early modern period is evident from the frequency with which later Greeks referred to him, quoted him, annotated his text, copied it, and plagiarized it. Dioscurides' contemporary Erotianus quoted him in his Hippocratic lexicon, and in the next generation two great Greek pharmacologists of the Flavian period, Asclepiades the Younger ("Pharmakion") and Andromachus the Younger, took ample account of Dioscurides' work. At the time of the emperor Trajan, Rufus of Ephesus explicitly acknowledged Dioscurides as an eminent authority, and under Hadrian another Ephesian, Soranus, drew on him in his Hippocratic glossary (fragments of which seem to survive in Hesychius' 5th-century lexicon of rare words). In the last six books of his work on simple drugs Galen by and large adapted Dioscurides' views to his own pharmacological system. In the 4th century AD Oribasius (*Collectiones Medicae* 11–13) recorded many lengthy verbatim excerpts from Dioscurides, arranged alphabetically. Writers of the 6th and 7th centuries who drew on (or knew of) Dioscurides' work include Aëtius of Amida (who offers excerpts), Alexander of Tralles, Stephanus of Byzantium, and Paul of Aegina. In the 9th century Photios seems to have had direct access to the *Materia Medica*, which he held in very high regard (*Bibliotheca*, cod. 178).

An impressive copy of the Vienna Dioscurides (New York, Pierpont Morgan Library) was produced in the 10th century. At about the same time Romanos II (emperor 959–63) sent another illustrated version from Constantinople to the caliph of Cordoba. Further evidence of Dioscurides' popularity throughout the Byzantine period is provided by the numerous comments entered in manuscripts of his text by physicians and others. Greek monks in the monastery of St John Prodromos in Petra, for example, made many annotations in the Vienna Dioscurides in the 14th and 15th centuries. A further measure of Dioscurides' influence was the active reception of his work both by the Latin west and by medieval Islam. Early Latin, Syriac, and Arabic translations ensured that for centuries Dioscurides served as a paradigm and source for three major cultural areas: the eastern Greek culture of Byzantium, Islamic civilization, and the western Christian Latin realms.

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See also **Botany; Galen; Health; Hippocrates; Nicander**

Biography

Born at Anazarbus in Cilicia, Pedanius Dioscurides (*fl. c.*AD 45–75) studied under Arius of Tarsus and travelled widely in the eastern Mediterranean to gather information about medicinal uses of plants, animal products, and minerals. His work *On Materia Medica* in five books is an extensive and influential study of the uses of drugs in medicine. Several of its surviving manuscripts are beautifully illustrated.

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DIPLOMACY

Whether extant evidence of diplomatic activity in Mesopotamia and pharaonic Egypt points to the existence of a diplomatic system is still the subject of academic debate, evidence of such a system in the case of ancient Greece, by contrast, is abundant and undisputed. Significantly, however, the practice of diplomatic exchanges was confined almost entirely to the Greek world. By virtue of its geographical position ancient mainland Greece was for long periods of its development free from external pressure (although this was of course not so in the case of settlements in the eastern and western peripheries of the Greek world). Under such conditions a cluster of small states emerged, often misleadingly referred to as "city states". The rise of the polis, the "self-governing state", was no doubt aided also by these states' relative isolation in the mountainous terrain of the mainland, which could not easily be traversed.

Thus separated by topography, but connected by sea routes, the states needed to develop a means of regular communication. A further incentive for the growth of this protodiplomatic traffic was the fact that no single polis was powerful enough to establish some form of hegemony over the others. The relative equilibrium that resulted and the absence of external pressure meant that individual states dealt with each other on a basis of equality. Their common cultural background and a shared language obviously facilitated the transaction of diplomatic business. Yet, it is also true that Greek diplomacy possessed no conception of norms and rules of proper diplomatic conduct. So intense was the citizen's loyalty to his polis, and so deep was his suspicion of the *xenoi*, the foreigners from beyond the boundaries of his state, that inter-polis relations were highly quarrelsome. But while this characteristic tended to increase the frequency of diplomatic exchanges, it also prevented the emergence of a recognized uniform diplomatic system. What, however, did emerge was a pattern, both administrative and behavioural, that bore surprising similarities to modern international diplomacy.

The modern practice of maintaining permanent diplomatic missions in foreign capitals was, of course, unknown to the Hellenic world. Indeed, this did not become established practice until the heyday of Venetian diplomacy in the 15th century. The hallmark of ancient Greek diplomacy, by contrast, was the frequent dispatch and reception of temporary, or *ad hoc*, legations. The Greeks dealt with foreign-policy issues as and when they arose. The ancient equivalent to the modern ambassador or envoy was the *presbys*, or elder. Chosen for his known respectability and his knowledge of political affairs, he was appointed to a temporary mission to negotiate the settlement of a specific problem with a foreign state.

To the modern observer the most striking feature of Greek diplomacy is its relative openness and the suspicion with which the *presbeis* were often regarded by their own people. Greek ambassadors were generally chosen, by the assembly of their polis, not so much for their skills as negotiators but rather for their representative qualities. The policy to be pursued by the envoys was debated publicly by the assembly, and the negotiating strategy laid down in detailed, and usually restrictive, instructions. The modern practice of furnishing ambassadors with plenipotentiary powers seems to have been virtually unknown in ancient Greece. Such was the suspicion of their own diplomats that the Greeks tended to send missions on a large scale, usually composed of several *presbeis*, not infrequently as many as ten. This practice served a dual purpose. The large number of usually highly skilled orators as envoys was meant to increase the weight of the sending state's case. But, most importantly, it was a device to address domestic needs. Different envoys represented different factions at home. A large mission was therefore broadly representative of the different points of view entertained by the assembly at home. The accommodation of domestic animosities was, however, not conducive to diplomatic effectiveness. Instead of conveying an impression of unity of purpose, a large mission suggested to the receiving polis domestic strife in the sending state. An often quoted example of this was the Athenian mission to the court of Philip of Macedon in 346 BC, which was remarkable more for the strictures uttered by the celebrated rival orators Aeschines and Demosthenes against each other than for its negotiating success. Such personal animosities in large, mixed embassies were thus liable to be exploited by the receiving state. It is indeed remarkable, as Harold Nicolson noted, "that intelligent people should have permitted so bad a diplomatic method to survive".

The openness of Greek diplomacy extended not only to the appointment and dispatch of embassies but also to the transaction of their business abroad. Equipped with credentials issued by their own assemblies, the *presbeis* were led on their arrival to the assembly of the host state. Diplomatic negotiations were conducted orally and, it seems, publicly. The individual members of the mission each delivered a set speech along the lines fixed by their home assembly; open negotiations would then ensue. If an agreement resulted, its terms were engraved in a tablet, to be displayed in public. The ratification of any such agreement was by public exchange of oaths. The public nature of Greek diplomacy may also account for the frequent censuring of the returning mission by its own polis. Occasionally the returning ambassadors were even prosecuted, as for example was Aeschines, whose character had been tarnished by his accepting a bribe from the Macedonian prince, and who was consequently banished to Rhodes.

Another important feature of Greek diplomacy was the evolution of the office of *proxenos*, which was roughly that of the modern consul. In contrast to his modern successors the *proxenos*_was a native of his polis, in which he resided while acting on behalf of another state and protecting the interests of the latter's citizens; it did not, however, include conducting diplomatic negotiations. Although the post of *proxenos* was one of honour, and many distinguished men strove to obtain it, the *proxenoi* were also often the leaders of the political faction which was favourably disposed towards the state they represented.

Its ad hoc nature and its public character, the lack of any administrative structure and of record keeping no doubt hampered Greek diplomacy. It was largely inconsistent, and the lack of domestic unity often rendered it ineffective. But the constancy and intensity of diplomatic exchanges, the recognition of diplomatic immunity, or the accepted principles of declaring war and concluding peace all indicate that the Greeks had developed a sophisticated and elaborate diplomatic apparatus. The Amphictionic Council, the leagues, and alliances demonstrate that the ancient Greeks understood the importance of the combinations of forces. The Delian League, for instance, organized and maintained under the hegemony of the Athenians for the better part of the 5th century BC, brought together 200 states in an anti-Persian combination. Without a sophisticated web of diplomatic exchanges such a feat would have been impossible.

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DISEASE

The earliest aetiological explanation of disease (*nosos, nousos*) in Greek literature is found in Hesiod's mythical description of the Golden Age of man in his *Works and Days* (90–105), a text dating from the 8th century BC. Hesiod envisages a purely masculine society free from the adversities that beset men nowadays – women, toil, and, significantly, disease: only when the first woman, Pandora, opens the jar are diseases released into the world as a punishment to men from Zeus. Henceforward, diseases roam the earth of their own accord, a constant bane to mortals.

This ancient notion of disease, that they are divine in origin and may be a symptom of divine displeasure at mortal misdeeds, was a persistent feature of Hellenic thinking from Homer onwards: at the very beginning of the *Iliad* Apollo sweeps a terrible plague through the ranks of the Achaeans because Agamemnon has insulted one of his Trojan priests (1. 1of.); the plague that devastates Sophocles' Thebes is a result of the religious pollution (*miasma*) brought upon the whole community by Oedipus; "the Sacred Disease", epilepsy, was attributed in antiquity to divine visitation; in the medieval period illnesses such as leprosy could be interpreted as divine retribution.

Yet just as diseases were thought to be inflicted by the gods, so their remedy was sought in prayer and sacrifice. In Greek antiquity many gods and heroes had the power to send and relieve sickness – for example, Artemis was invoked as a healer of women, but Apollo in particular was both the bringer and healer of disease, given the epithets of "doctor" (*iatros*) and "saviour" (*epikourios*). Both Homer's Achaeans and Sophocles' Thebans find a cure for their communal sickness by supplicating Apollo, while in 430 BC at the end of the great plague of Athens a shrine was dedicated to Apollo the Helper at Bassae.

Also important as a healer of disease was Apollo's son Asclepius, the father of Hygeia (Health) and the exemplary physician of the earliest Greek poetry (Homer, *Iliad*, 11. 833; *Hymnus Homericus ad Apollinem*, 210; Hesiod, fr.50), whose staff with a snake coiled around it is a symbol of the medical profession still. Asclepius had many cult sites throughout Greece, the largest of which was established at the end of the 6th century BC at Epidaurus; there were important sanctuaries too at Pergamum and Cos. The sick sought a cure for their disease through purification, sacrifice, and, above all, the practice of incubation – the patient slept in the sanctuary in the hope of being granted a direct cure or at least of receiving helpful instructions from the god in a dream.

Such appeals to the supernatural for relief from sickness reflect the paucity of defences available in antiquity against disease of often epidemic proportions. Thucydides' account of the Athenian plague in the late 5th century BC (2. 47ff.) is a powerful reminder of the despair and social devastation that such widespread and uncontrollable attacks of disease could produce, while Sophocles' *Oedipus Tyrannus*, produced during the same plague, dramatized the helplessness of a city ravaged by disease. Such epidemics raged through the Hellenic world on a regular basis: in AD 542 devastating bubonic plague gripped Byzantium and the whole Levant; in AD 744–47 plague resulted in the serious depopulation of Constantinople; and outbreaks of plague recurred throughout the medieval period. Whole populations were affected by other diseases too; there was an epidemic of leprosy at the beginning of the 3rd century BC in Alexandria and the disease was endemic throughout Europe in the 11th and 12th centuries, perhaps spread by the Crusaders, while malaria (which was said to have killed Alexander) was rife in the Classical period and again after the fall of Byzantium. Poor sanitation and urban overcrowding, especially in times of war and its aftermath, contributed to the spread of contagious diseases as did travel and trade within the Mediterranean and beyond to the East, to Africa, and to central Europe. Thucydides reports that the great plague of Athens started at the Piraeus.

Yet alongside supernatural ideas about illness which persisted into the Christian era, when saints took over the role of the ancient gods and heroes as healers of the sick, the Greek thinkers of antiquity sought natural explanations for the origins of disease. From the 5th century BC onward in Greece, Ionia, and Sicily there developed a body of knowledge about diseases, their classification, diagnosis, origins, treatment, and even prevention. Theories of disease were linked with contemporary scientific and philosophical doctrines and indeed writers outside the medical profession were interested in the nature of sickness and health; Plato gives a detailed account of the origin of disease in the *Timaeus* while Aristotle often discusses disease and may have written a work on the subject.

The most important extant collection of writing on disease from the ancient Hellenic world, however, is the Hippocratic corpus, which comprises about 60 treatises, most of which were written between 430 and 330 BC and which was assembled as a body of work probably by Alexandrian scholars in the 3rd century BC. This collection, the first systematic investigation and analysis of diseases and their treatment, takes its name from Hippocrates, the most famous member of a 5th-century BC guild of doctors from Cos who claimed Asclepius as an ancestor. However, no treatise of the corpus can be attributed directly to Hippocrates – the works are anonymous, written by an assortment of medics from Cos, Cnidus, and elsewhere who express a variety of opinions on diseases and their treatment. Some of the treatises are lectures on physiology and anatomy (*On the Nature of Man, On the Nature of the Child, The Heart*); some deal with the diseases of women in particular (*On the Diseases of Women 1 and 2, On the Diseases of Young Girls*); and some offer theories of the influence of environment on disease (*Airs, Waters, Places*) or advice on the treatment or prevention of disease (*Regimen in Acute Diseases, A Regimen for Health*). One significant and influential feature of the corpus is the emphasis given to the systematic observation of patients' symptoms – seven books of the collection consist of case notes (*Epidemics 1* and 3 are the earliest and most interesting) and, while retrospective diagnosis can be problematic, many specific diseases from diphtheria to tuberculosis can be identified from these detailed accounts.

Various theories regarding the origin of diseases are put forward by the Hippocratic writers and their ideas are sometimes at variance. There are, however, several unifying features, the most significant of which is an insistence that all diseases are natural rather than supernatural in origin, that "each disease has a natural cause and nothing happens without a natural cause" (*Airs, Waters and Places*, ch. 22; cf. *Science of Medicine*, ch. 6). Even epilepsy is given a natural aetiology by one medical writer who devoted a whole treatise (*The Sacred Disease*) to a discussion of the cause of the sickness and who attacks the "witch doctors and charlatans" who attribute epilepsy to a divine element.

The Hippocratic corpus contains several theories of the natural causes of disease. Environmental factors such as climate and water supply were thought to be responsible when many people in a locality exhibited common symptoms, and the concept of contagion was recognized by Thucydides at least; but a variety of diseases in a population indicated that the cause lay in the individual, specifically in relation to his or her diet and habits. Perhaps the most influential aspect of Hippocratic nosology is the common theory that diseases resulted from an imbalance in the constituents of the body. This idea can be traced back to a follower of Pythagoras, Alcmaeon of Croton, who was influenced too by the theories of the Presocratic philosopher Empedocles who posited that everything consists of four primary elements – air, fire, earth, and water. Alcmaeon claimed that "health is the mixture of the qualities in the proper proportion" (fr. 4 Diels-Kranz, from *c.*500 BC) and that, if this equality of influence (*isonomia*) were disturbed, disease would result. Alcmaeon and many of the Hippocratic writers suggested that imbalances between "primary opposites" such as hot and cold, wet and dry, were responsible for diseases, while other pathological theories were based on an imbalance of humours, in which deficiencies or excesses of the body's "juices" (*chymoi*), particularly bile and phlegm, gave rise to diseases (see for example *Diseases 1*, ch. 2; *Affections*, ch. 1; *Epidemics 1* and 2). The writer of the treatise *On the Nature of Man* added two additional humours, black bile (choler) and blood, to this scheme, and this doctrine of four humours formed the basis of Western medical theory throughout the medieval period and beyond. Physical imbalances that caused disease could result from environmental factors such as geographical location or climatic conditions which rendered individuals "phlegmatic" or "bilious" and thus susceptible to particular pathological conditions (*Airs, Waters, Places* deals with this theme), while an overindulgence in food, drink, and sex was considered especially deleterious to the health – the Apollonian maxim "nothing to excess" exemplifies the Greek attitude to unrestrained behaviour and its consequences in matters of health as elsewhere.

The medical writers of antiquity recognized the importance of preventative medicine as a factor in the avoidance of disease; the treatise *A Regimen for Health* in particular offers advice on diet and exercise. Indeed the typical Greek diet of fruit and vegetables, whole grains, olive oil, and fish, combined with few animal fats and refined food, which remained largely unchanged until the very recent past, may have conferred some protection against many pathological conditions such as heart disease and various cancers.

In the ancient and medieval Hellenic world, prevention was most certainly better than a cure for disease, if indeed a cure could be found. Doctors (*iatroi*) regularly bled and purged their unfortunate patients and, while the efficacy of plants in the treatment of sickness was recognized at least as long ago as Homeric epic and drug therapy may have provided some relief from the symptoms of illness, prescriptions from the ancient pharmacopoeia supplied few if any effective cures for disease. Patients were treated at home. The first civilian hospital was founded in the middle of the 4th century AD by St Basil the Great, bishop of Caesarea, yet hospitals benefited only a few and attempts to prevent and treat disease were largely inadequate until the very recent past; as recently as the 1960s one study of health and disease in the population of rural Greece discovered a remarkable similarity to the nosology of the Hippocratic texts of the 5th century BC (see Blum and Blum, 1965).

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See also **Health; Medicine**

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DITHYRAMB

The dithyramb was a choral song performed in honour of Dionysus. The original meaning of the word itself is obscure; the root *-amb* may be pre-Greek, but it nonetheless suggests a kinship with *iambos*, *thriambos*, and *ithumbos*, all terms for songs with early connections with Dionysus. Surviving evidence seems to indicate that the history of the genre can be divided into three phases: dithyramb as pre-literate cult song, the incorporation

of choral dithyramb into formal competitions in the 6th century BC, and the drastic renovation of the genre at the hands of the poets of the "new music" in the latter pan of the 5th century.

Earliest evidence of the dithyramb comes from Archilochus of Paros in the 7th century BC. Although the passage in question does not itself appear to be dithyrambic, Archilochus speaks of knowing how "to lead off the dithyramb of lord Dionysus" when his "wits are thunderstruck with wine" (fr. 120 West^2). Archilochus' use of the verb *exarchein* ("to lead off") finds a parallel in a number of early texts describing the formal conduct of communal songs such as the lament and wedding song (*Iliad*, 24. 723; *Odyssey*, 4. 15–19), and Archilochus himself also used it of the paean (fr. 121 West^2). These passages suggest a kind of song in which a leader engages in exchanges with a chorus, although the precise nature of such songs and the kind of Dionysiac occasion in which the dithyramb was performed remain uncertain. Aristotle seemed to be thinking in similar terms when he recorded that tragedy originated "from those leading off the dithyramb", just as comedy arose from the leaders of the phallic song (*Poetics*, 1449a10). Similarly Proclus finds the origin of the dithyramb in "rustic play and festivities at drinking parties" (*Chrest.* 51 [320b21]). Aristotle also adds that drama came into being from an "improvisatory beginning", and this may be taken to indicate that early dithyrambs were not formal poetic compositions that were preserved in writing. In this light it is hazardous to make inferences concerning this period from the later dithyramb, especially since the genre underwent significant change in the 5th century BC. It is particularly important to note that the frequent assertion that the early dithyramb was a vehicle for myth, detailing the nature of Dionysus and his history, is not directly supported by the evidence, but is an uncertain inference drawn from later practice.

Herodotus records that Arion of Methymna "was the first man that we know of to compose a dithyramb and so name it and produce it in Corinth" (1. 23). This statement has aroused considerable controversy, especially concerning the precise implications of *onomasanta* ("having named it"). In light of the earlier evidence of Archilochus, it is very unlikely that Arion can have invented the genre itself. Accordingly, it has been plausibly suggested that Herodotus is referring to the formal introduction in Corinth of a choral song performed by a trained choir, to which the name "dithyramb" was given. The alternative view, that *onomasanta* means "entitled", has been widely held, but it unconvincingly pushes back into the 7th century BC the practice of applying titles to dithyrambs, a practice that is only securely attested for the 5th century BC.

Arion's activities in Corinth should be understood within the broader context of the initiatives of the early tyrants in numerous Greek cities, where local pride was fostered and civic ideology promoted through the establishment of poetic contests. Such contests were regularly part of religious festivals, and attracted competitors from across Greece. Little is known of the details of Arion's activity at Corinth, but it seems to have been well known to later practitioners of the genre. When Pindar asks in a victory ode composed for a Corinthian victor, "Whence came the delights of Dionysus with the ox-driving dithyramb?", the ancient commentators tell us that he is referring to Arion, and we can make the further inference that the dithyramb is called "ox-driving" (*boelatas*) because oxen were the prizes in the dithyrambic competition and they were sacrificed as part of the festival. There were no doubt strong similarities between such dithyrambic contests and the better-attested tragic competitions in Athens.

As is regularly the case, more is known about Athenian practice. Lasus of Hermione (b. 548/4 BC) is said to have established the dithyrambic competitions at Athens. We have some idea of the way in which the contests were organized: each of the ten Athenian tribes competed with one chorus of men and one of boys, and the size of these choruses was fixed at 50 in each case. As in the case of the dramatic competitions, a producer, called a *choregos*, presided over the performance, not only seeing to the equipping of the chorus, but also providing fees for the poet, the choral trainer (*chorodidaskalos*), and the accompanist, the *auletes*, who played the *aulos*, a double-reed instrument. There is evidence for dithyrambic performances at a number of Athenian festivals: the City Dionysia, Thargelia, Panathenaea, Prometheia, and the Hephaestia. Hypodicus of Chalcis, who is now little more than a name, was the first victor at the Dionysia in 509/8 BC, and this may imply that the dithyrambic competition postdated the formal institution of the tragic competitions, an event traditionally assigned to *c.*535 BC. The poets are never mentioned in inscriptions commemorating victories, and this suggests that the contests were a competition among the tribes, who commissioned dithyrambs from distinguished poets from around the Greek world. The victorious *choregos* typically set up in the Street of Tripods a tripod with a dedicatory inscription.

In the first part of the 5th century BC the most successful poets of the dithyramb were Simonides, Pindar, and Bacchylides. An anonymous epigram, usually dated to the Hellenistic period, mentions that Simonides won 56 victories in dithyrambic contests, but there is only a single mention among the ancient sources of a Simonidean dithyramb: Strabo (15. 3. 2) refers to a dithyramb entitled *Memnon*, which was part of Simonides' *Deliaca* (possibly poems composed for the Delians). Thanks largely to papyrus finds, we have a better impression of the poems by Pindar and Bacchylides collected together as dithyrambs by Alexandrian editors. The remains of Pindar's dithyrambs (frr. 70–88 Maehler) are noteworthy for the prominence of Dionysiac elements, and this suggests a conscious acknowledgement of the Dionysiac roots of the genre. As in the case of Pindar's victory odes, there are also passages that treat the occasion of the poem and the polis that commissioned it, as well as mythic narrative (including myths that do not appear to be connected with Dionysus). In sharp contrast to Pindar's dithyrambs, those by Bacchylides (15–20, possibly frr. 21–22 Maehler) betray no interest in Dionysiac myth or religion, nor do they appear to give any clear indication of the occasion for which they were intended; they are simply lyric narratives of a variety of myths. It is possible that Bacchylides' poems indicate the degree to which the dithyramb had moved away from its Dionysiac roots, but it is not at all certain that these poems are in fact dithyrambs. There is little firm evidence for the criteria employed by Alexandrian scholars for classifying such poems, and there is some suggestion that the situation was anything but clear, even when scholars were working with complete texts. A scholium (P.Oxy. 2368) preserves traces of an ancient dispute between Aristarchus and Callimachus over the classification of the *Cassandra* (fr. 23

Maehler), and that debate has been echoed by modern scholars, especially concerning *Dith.* 17.

Many of the uncertainties concerning the nature and character of earlier dithyramb arise from the fact that in the latter half of the 5th century BC the dithyramb became a favourite vehicle for the musical experiments of the poets of the "new music". The comic poet Pherecrates provides a list of offences committed against Music by the leaders of the movement (fr. 155 *PCG*), among whom he names Cinesias, Melanippides, Timotheus, and Philoxenus. In particular, the *Persae* by Timotheus provides an extended example of "dithyrambic" style, although that poem is technically a *nomos*. A number of other extant passages give us a glimpse into the nature of a genre in which the traditional rigour of triadic structure has been replaced by astrophic form, and words have been subordinated to music. Accordingly, the emphasis seems very much to have been on the music, and there are reports of outrageous instrumental effects. Elaborate vocabulary and complicated imagery rendered the texts obscure to many, and these poets were much criticized on such grounds by later writers. In fact, the obscurity of dithyrambic poets became proverbial: "You make even less sense than a dithyramb", runs a proverb quoted by a scholiast to Aristophanes (*Birds*, 1393). This "dithyrambic style" was regularly pilloried by comic poets in the 4th century BC.

Dithyrambs continued to be performed in the post-Classical world. There is evidence for such performances on Delos in the Hellenistic period, at both the Delia and the Apollonia, and in Athens at the City Dionysia, at least until the 2nd century AD. The fragments from this period offer no firm basis for speculation, and it is tempting to suppose that activity of the poets of the "new music" so undermined the character of the dithyramb that the genre never fully recovered.

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See also **Poetry (Lyric); Song**

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DIVINATION

Divination, the supposed ability to acquire knowledge of the future or of other normally inaccessible matters by supernatural means, has always found a place in the Greek tradition from antiquity to the present day, but while some forms have enjoyed cultural approval, others have been condemned.

All the methods of divination in the Greek tradition, from the most sophisticated to the most crude, operate on the same basic principle: the belief that supernatural forces (whether gods, angels, demons, or spirits of the dead), endowed with greater understanding than humans, may reveal part of their superior knowledge through the phenomena being experienced or observed. Scholarship, following distinctions drawn in antiquity, has traditionally divided the methods of divination known in the Greek world between the "natural" or "intuitive" (those based simply upon direct inspiration in a natural or dream state) and the "artificial" or "inductive" (those involving deliberate observation, manipulation, and intervention on the part of the diviner). Such groupings, however, tend to be confusing since, even in the most apparently intuitive methods, some manipulation may be thought possible or necessary; they also impose a distinction not perceived by the great majority of actual participants, and have further been understood in different ways by different scholars. They are thus avoided here.

Oracular prophecy undoubtedly enjoyed the highest cultural esteem in the ancient Greek world. It was conducted at all manner of holy places, some of which transcended state boundaries and were highly institutionalized, although most were very local, catering to small communities and individuals. It also encompassed a broad spectrum of techniques, ranging from ecstatic utterance or frenzied behaviour to the interpretation of the rustling of leaves in a sacred tree or ripples in a sacred pool. The most famous site was probably Delphi, where Apollo was believed to speak through an inspired individual, the Pythia, but there were a number of other major oracles of similar standing, that of Zeus at Dodona for example. At these important centres a variety of complex rituals of consultation were conducted in correspondingly elaborate physical surroundings to produce the oracular response; questions were often posed by the representatives of cities and other such groups and concerned important matters of state policy and law, although individuals might also make enquiries. Another type of oracle, operating at a high cultural level and best exemplified by the tradition of Sibylline ecstatic prophecy, did not offer answers to specific questions but rather spoke generally about the future.

Closely related to oracular prophecy was the interpretation of dreams, which were taken to be inspired by supernatural powers. At some major sites, and at a great number of lesser ones, a god was believed to inspire the sick who slept there with dreams that either healed directly or told how a cure might be effected (incubation); most notable perhaps was the shrine of Asclepius at Epidaurus. People also commonly interpreted their own dreams as predictions of the future, or else they might employ professionals who had training and access to the many textbooks of dream interpretation (*oneirokritika*) that developed over the centuries and, in some cases, incorporated material from outside the Greek tradition. Dream interpretation illustrates quite clearly the problems of drawing sharp distinctions between "natural" and "artificial" forms of divination, for although it might appear to be a purely intuitive technique, in many cases there was an obvious perception that dreams might be *induced*, either in the self or another, and the powers producing them manipulated. Related to this notion, indeed, was a whole range of other divinatory techniques that involved the inducement of inspiration. Thus in practices such as hydromancy, lekanomancy, and katoptromancy (where the behaviour of objects or substances in a vessel of water was observed or where, in more complex forms, a medium saw visions on the surface of water or some other shining or reflective material) it

was believed that supernatural powers could be induced or forced by a diviner or sorcerer to reveal hidden knowledge; often these powers were thought to be the spirits of the dead and hence such techniques were perceived to be forms of necromancy.

Other common and highly developed methods of divination in the pre-Christian period include augury, in which the behaviour of birds was noted, and hieroscopy, in which the behaviour of sacrificial victims and, even more importantly, the formation, development, and marking of their various organs, such as the liver or shoulder blades, were observed. Also subject to interpretation were the chance utterances of people and involuntary movements of the body (such as twitching, sneezing, itching, and the like), as well as the patterns found on various parts of the body, like the palms (chiromancy). Natural signs were thought to predict coming weather, while heavenly events, from thunder and lightning to the appearance of comets and shooting stars, were believed to be very significant. From Hellenistic times the sometimes immensely complex and "scientific" technique of astrology developed under eastern influence; using observation of the regular and irregular movements of heavenly bodies, this either predicted the future or determined the most appropriate course and timing of action. Other simple, and consequently very common, techniques involved reading the pattern in which cast objects, such as dice, grain, knuckle bones, or other lots, fell, or the order in which they were extracted from a container. The point at which spinning objects stopped was believed to be revealing, for example of the identity of a thief, and significance might be derived from passages determined by some random method of selection in written texts.

With the rise of Christianity to dominance in the Greek world, the old officially sanctioned forms of divination ceased to be culturally acceptable; most had been formally banned by the 4th century AD and gradually fell into disuse. Oracular prophecy thus almost completely disappeared as a result of the Church's need to preserve the authority of its canon, despite having enjoyed some prominence in the form of directly inspired utterance in primitive Christianity and in some heretical sects; the various types of divination related to animal sacrifice also vanished along with the sacrificial rituals themselves. But although the new Christian orthodoxy claimed that all forms of pagan divination were evil and nothing but vehicles of demonic deceit, practice at the popular level dictated that some at least would continue relatively unchanged. In the public sphere incubation, for example, carried on without interruption, churches taking the place (sometimes quite literally) of pagan shrines and Christian holy figures substituting as the source of inspiration. There is also abundant evidence throughout Byzantine times and down to the modern period that very many of the more private and individual forms of divination continued to be practised, not only at the local level but sometimes even in such places as the imperial court.

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See also **Astrology; Dreams; Oracles**

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DIVORCE

Evidence from Classical Athens suggests that divorce was common and simple to accomplish, requiring state authorization in only a few particular cases, a situation that mirrors the concept of marriage as an essentially private matter between individual families in which the state played no formal role. We possess less evidence for areas outside Athens, but the Gortyn law codes of Crete and the apparent flexibility of the marriage bond at Sparta suggest that divorce was easily obtainable throughout Greece.

At Athens there were, broadly, three categories of divorce, the defining characteristic of each being the agent who effected the separation. First, the husband could send his wife away (*apopempsis*), an action that required no justification and so was a potential area of insecurity for women. However, it is likely that such divorces were discouraged by social and family pressures and by the convention that demanded the return of the dowry to the wife's natal family in all cases of divorce,

whatever the reason. There was however one circumstance in which the sending away of a wife was compulsory on pain of the loss of civil rights (*atimia*) for her husband, that of the wife's adultery (for an example, see Lysias, 14. 28).

Second, the wife could leave the marital home (*apoleipsis*). Plutarch claims that Hipparate, the wife of Alcibiades, registered her intention to divorce her errant husband with the archon (Plutarch, *Alcibiades*, 8), suggesting that Athenian women lacked the requisite authority to effect a divorce personally and so, unlike their husbands, required the ratification of the state. The evidence for wives initiating divorce is problematic, however, since no other text describes such an event, although Euripides, in the context of the possibility of a woman leaving an unhappy marriage, suggests that divorce brought women a bad reputation (*Medea*, 236–37), while the children of a marriage belonged to their father and remained in his household, perhaps another disincentive for wives to seek divorce.

The third and perhaps most common category of divorce was that of *aphairesis*, the dissolution of marriage by the wife's natal guardian (*kyrios*). A woman's father and brothers had the right to insist upon her divorce and the return of her dowry, and the reasons that motivated them to do so highlight several functions of marriage in antiquity (and beyond). Childlessness is attested as a reason for divorce and the wife who did not provide her husband with heirs faced being sent back to her father's house. However, two lawcourt speeches voice a concern for the wives of infertile husbands; in one a husband unselfishly asks his wife's father to retrieve her and remarry her to another man so that she might have the chance to bear children (Isaeus, 2. 7–8), while in another a speaker criticizes the brother of a married but childless woman for not effecting her divorce and finding her another husband (Isaeus, 8. 36). The fate of the adulteress, compulsorily divorced, reflects too upon the notion that the primary purpose of marriage is the provision of legitimate children; the seduced woman can no longer be relied upon to fulfil this wifely function and so must be dismissed.

Marriage was important too as a site for social and interfamilial alliance, engendering and cementing kinship ties between and within families. Conversely, when conflict arose, divorce could result (Demosthenes, 4. 4), while social and financial ambition could also lead to the dissolution of an unprofitable marriage; in one text a daughter begs her father not to divorce her from the husband she loves to marry her to a richer man (Menander, Papyrus Didot 1). The case of the *epikliros* is particularly instructive here. The estate of a man who died without sons could be claimed by his nearest male kin, who was constrained also to marry any daughter of the deceased, the *epikliros*, who thus pertained to the estate. Such claims were legally adjudicated in a special court hearing (*epidikasia*). Significantly, a married woman who became an *epikliros* was divorced from her present husband in the interests of inheritance and the production of legitimate heirs for her natal family and thus, as the speaker in a 4th-century BC court case insists, "many men are deprived of their wives" (Isaeus, 3. 64).

Such pragmatic concerns about the legitimacy of children and socio-economic factors continued to inform marital alliance and separation in the Hellenic world, but the new perspective on marriage introduced by Christian teaching produced a pronounced change in attitudes to divorce. While the early Church's view on wedlock was divided, on the whole it promulgated the sanctity of marriage which thus was accorded an extra religious dimension and status. Furthermore, in marked contrast to the easily dissoluble marriage ties of antiquity, Christian marriage was regarded as a bond for life, and divorce was thus anathema. A further disincentive to divorce lay in the Christian notion that remarriage constituted adultery, even in the case of widowhood and especially with regard to divorce.

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See also **Adultery; Dowry; Marriage**

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DODECANESE

Aegean islands

Today the "Dodecanese" (literally "group of 12 islands") includes Astypalia, Chalki, Cos, Kalymnos, Karpathos, Kasos, Kastellorizo, Leros, Leipsoi, Nisyros, Patmos, Rhodes, Symi, and Tilos, as well as a few other small islands, one or two of which are inhabited but do not have independent (deme) status. That is a total of 14 islands. The original 12, which included Ikaria but excluded Rhodes and Cos, got their group status following a collective protest in 1908 at the proposed removal of privileges which they had enjoyed from the Ottoman authorities since the 16th century. These were taxation at a modest level and by community not by individual, and freedom

from the permanent presence of Ottoman officials. The very importance of Rhodes and Cos was of course the reason why they were, from the start, excluded from privileged status. In fact the term ''Dodecanese'' was used as early as the 12th century AD but in a quite different sense. In this article it is used with the meaning it bears today.

Although the Dodecanese are geologically, and in details of climate and fauna and flora, more closely related to continental Asia Minor than to the Aegean archipelago, and in early prehistory were close in culture to Asia Minor, from the time of the Minoan palaces (*c.*2000 BC) they were part of Aegean spheres of influence (which included coastal Anatolia).

Both Minoan and Mycenaean remains have been found widely in these islands and it is clear that the Dodecanese belonged, in succession, to these cultural areas. Their history in the early Iron Age and down to *c.*600 BC is not known in much detail but they certainly received settlers from various parts of Greece and acquired their Dorian character. The islands (especially the three cities of Rhodes – Ialysus, Camirus and Lindus) were prosperous in the Archaic period (6th century BC) and the Rhodians participated in the establishment of the Greek trading emporium of Naucratis on the Nile delta and founded colonies abroad, contributing substantially to the spread of Greek culture. In the Persian Wars of the early 5th century BC, the colonies were squeezed between the opposing sides, not least because of their geographical position. In the Classical period there were synoecisms, accompanied by the foundation of new urban centres, on both Rhodes and Cos. The smaller islands were subordinate to them and were sometimes formally incorporated into their administrative structure. Rhodes and Cos were especially prosperous and important artistic centres in the Hellenistic period, when they were subject to the Ptolemies of Egypt. Rhodian sculptors were responsible, inter alia, for the works in the Cave of Tiberius at Sperlonga in Italy, and played an important part in the transmission of Greek stylistic influences on Roman sculpture. After the advent of the Romans, Rhodes was punished for its support of the anti-Roman Macedonian king Perseus, and lost its economic and maritime influence when Delos was made a free port in AD 166.

When Constantinople became the capital of the Christianized Roman empire in AD 330, geography again determined the allegiance of the Dodecanese as is clear from the remains of numerous early Christian basilicas in the islands.

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DODONA

City in Epirus

Dodona was the site of reputedly the oldest oracle in ancient Greece and dedicated to the worship of Zeus. Located at the head of the valley of Tsarkopvitsa at the foot of Mount Tomaros, the ancient site is 22 km south of Ioannina. In Classical times pilgrims reached the site from the south, up the valley of the river Louros to the town of Kopani. In Roman times Dodona lay directly on the inner main Epirote road heading north from Nicopolis; its centrality explains the revival in the 2nd century AD of the Zeus Naia festival and games and the establishment of a bisphoric two centuries later.

In the 3rd millennium BC Dodona saw continuous habitation in the form of primitive shepherd communities. No buildings survive from this period, although numerous stone tools, loom weights, pottery, and a clay hearth have been found. Seasonal habitation is suggested, that is, shepherds brought their herds to Dodona each summer to take advantage of the pastures, springs, forests, and cool temperatures. These non-Greek-speaking shepherds are identified in Greek tradition as Pelasgians. At the end of the Early Bronze Age or shortly thereafter, Greek-speaking peoples moved into the area, perhaps bringing with them the worship of Zeus. (Some scholars hypothesize that an original cult to the mother-earth goddess, Gaia, was supplanted by Zeus' cult; Gaia then became Zeus' consort, only to be replaced ultimately by Dione Naia, who is known from numismatic and inscriptional evidence to have shared the sanctuary with Zeus in the historical period.)

Dodona appears in both the *Iliad* and the *Odyssey*. In the *Iliad* (16. 233ff.) Achilles mentions priests called Selloi who had unwashed feet, slept on the ground, and acted as interpreters of Zeus; some scholars explain the unparalleled behaviour of unwashed feet and sleeping on the ground as indicative of an earlier Gaia cult, wherein priests strove to stay in communication with mother earth. Odysseus (*Odyssey*, 14. 327–28) travelled to Dodona to hear the will of Zeus uttered from a sacred oak tree. It is not clear from the text whether Zeus spoke from the oak, the oak itself spoke, or the priests interpreted the rustling of the oak's leaves or the moving of its branches. Hesiod (fr. 240, 319M-W) goes further, stating that Zeus spoke through doves within the oak; this may refer to the birds' cries or to their flight. Herodotus (2. 55) mentions the presence of three priestesses, whom he calls ''doves''; his silence on the Selloi suggests that the male priests of Homer had been supplanted by priestesses sometime during the Archaic period. Scholars explain the move to priestesses as Dodona's attempt to emulate the oracular practices at the more famous sanctuary of Delphi. Whatever the reason for the change, the priestesses now assumed charge of the oracle, which had come to consist of consultation by lots. (Plato's assertion in the *Phaedrus* that the priestesses underwent ecstatic trances is a fantasy.) The use of lots would be logical if the sacred oak tree, which by now would have been 600 years old, had begun to die; moreover, the oracle at Delphi occasionally resorted to the use of lots, and so Dodona may have copied that practice.

The method of consultation was quite simple. The enquirer wrote his query onto a ribbon strip of lead and folded it over three or four times. The folded lead was marked on the outside

for identification purposes and placed in a jar. A priestess then pulled from the jar an enquiry at the very time that she drew from another jar one of several responses, either a "yes" or "no" answer or the name of a deity to whom proper sacrifices needed to be made. These responses may have been written on oaken tablets (thereby perpetuating the tradition of the prophetic oak), although the use of other materials such as beans cannot be precluded. Over 150 enquiries have been discovered, the majority now housed in the Ioannina Museum. Only a few enquiries dealt with state affairs; the rest came from private individuals, most of them local, who wanted to receive foreknowledge about such matters as marriage, children, health, and employment. The lead tablets date from 500 to about 250 BC, when the oracle fell into disuse.

The city of Dodona flourished even after the oracle declined. Pyrrhus, king of Epirus, made it the religious centre of his kingdom and transferred there the mint of the Epirote alliance. With the subsequent establishment of the festival of Zeus Naia honouring the god, Dodona saw its first major building programme. Previously the site had consisted of only a small, early 4th-century temple to Zeus, a stone circuit wall that enclosed the temple and sacred oak, and a temple of Dione; in as much as the oracular cult required no elaborate structures (other than a few tables, jars, and consulting area), the sparse remains are wholly expected. During Pyrrhus' reign, the temple of Zeus was enlarged, two temples (to Heracles and to Aphrodite) were constructed, and a vast theatre was built on the hillside. The theatre's large seating capacity (up to 20,000) can be explained only by its connection with the Naia festival. The city was also fortified by an extensive circuit wall, with towers on three of its sides. The city proper, located on the acropolis north of the theatre, is mostly unexcavated. In 219 BC the Aetolians, under the generalship of Dorimachus, invaded Epirus and ravaged the site. The site was immediately restored by Philip V, king of Macedon. The temple of Zeus was further enlarged; also erected were a new temple of Dione and, in conjunction with the festival of the Naia, a council house, guesthouse, and a stadium to the southwest of the theatre. The oracle had by now fallen silent, as evidenced by the dearth of votive offerings and enquiry tablets. In 167 BC the Romans under Aemilius Paullus sacked Dodona to punish the Epirotes who had assisted the Macedonian king Perseus in his revolt. Dodona never recovered from this destruction. A ravaging in 88 BC by troops of Mithradates VI, king of Pontus, only exacerbated the situation. The Naia did continue on, however, until at least the mid-3rd century AD. The oracle remained silent, although Roman and Christian Greek writers penned fanciful descriptions of mantic activities like the banging of bronze cauldrons or gongs and the presence of oracular springs. The Naia ceased with the establishment of Christianity.

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See also **Oracles**

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DORIANS

Ancient ethnic group

The ancient Greeks believed that the Hellenic people was constituted by the totality of various ethnic subgroups, of whom the Dorians (along with the Ionians, Aeolians, and Achaeans) were considered to be the most important. By the Classical period, various cities in the Peloponnese (Sparta, Argos, Corinth, Sicyon, Megara), Crete and the southern Cyclades (Melos, Thera), the Dodecanese (Rhodes, Cos), southwest Asia Minor (Cnidus, Halicarnassus), North Africa (Cyrene), Sicily (Syracuse, Megara Hyblaea, Gela), and south Italy (Tarentum) claimed that they were Dorian foundations on the basis of perceived similarities in dialect, rituals, customs, and common origins.

According to ancient authors the Dorians had originally lived in central and northern Greece but had, towards the end of the heroic age, migrated south to the Peloponnese in the company of the Heraclidae (descendants of Heracles); a second migratory wave carried Dorians across the southern Aegean to Asia Minor, while the period of colonization from the 8th century BC onwards resulted in the Dorian foundations in Italy, Sicily, and Libya. The tradition for the so-called "Dorian invasion" of the Peloponnese is most fully attested in the universal history of Diodorus Siculus (1st century BC) and in the early imperial work known as the *Library* which was erroneously ascribed to Apollodorus of Athens. There are, however, earlier references: in the 5th century BC Herodotus (9. 26) mentions the first (unsuccessful) assault on the Peloponnese by the Heraclidae and Thucydides (1. 12) notes the second (successful) invasion by the Dorians and Heraclidae – an event which he places 80 years after the sack of Troy – while the 7th-century BC Spartan poet Tyrtaeus (fr. 2) proclaims that Sparta was granted by Zeus and Hera "to the Heraclidae, with whom we [Dorians] left windy Erineus and arrived in the broad island of Pelops". Despite the fact that his subject matter ostensibly deals with the premigratory phase of the heroic age, Homer (*Odyssey*, 19. 177) remarks on the presence of Dorians in Crete, alongside Achaeans, Eteocretans, Cydonians, and Pelasgians.

Although attempts were made in the 19th century to find archaeological confirmation for the Dorian invasion in the destructions of the Mycenaean palaces, it is now generally believed that the collapse of the palatial system was due to natural disaster, internal conflict, or economic failure rather than to external enemy action. Furthermore, apparent innovations in cultural forms and artifacts that were once attributed to the arrival of the Dorians (e.g. iron working, protogeometric pottery, cremation, burial in cist tombs, and new types of weapons and jewellery) have proved to be either earlier than the palatial destructions or first attested in areas such as Attica and Euboea which did not claim to be Dorian.

Similar scepticism concerning the tradition has recently been expressed by linguists who note that while the "Doric" dialects spoken in various cities share certain structural correspondences, no single linguistic innovation can be isolated that is not also found in at least one other non-Doric dialect and that therefore the Doric dialects need not derive from one proto-Doric idiom once spoken in central or northern Greece. In addition some Dorian cities seem not to have used the Doric dialect: by the 5th century BC, Halicarnassus was apparently employing the Ionic dialect for its official inscriptions.

Thucydides (6. 4. 3; 6. 5. 1) implies the existence of recognizably Dorian customs, though these are not explicitly identified. They may have concerned issues of constitution, law, political subdivision into the three "Doric" tribes of the Hylleis, Dymanes, and Pamphyloi, calendars, and religious festivals (for example, the festival of the Carnea), but it is far from clear that such customs were universal to all Dorian cities. Similarly, despite its origins in Corinthia, there is no reason to regard the "Doric" order of architecture as exclusively Dorian; the same is true of the "Doric" mode in music. Finally, various versions of the tradition appear to attribute to the Dorians different ancestors (Dorus, Aegimius) and different primordial homelands (Doris, Hestiaeotis, Thessaly, Macedonia) which might suggest that the legend of the Dorian invasion was in fact a compilation of earlier traditions that evolved towards the end of the Dark Age.

The earliest mobilization of Dorian identity for extrapolitical purposes would appear to be the Dorian Hexapolis – a league which, according to Herodotus (1. 144), was centred on the sanctuary of Apollo Triopios on the Cnidian promontory and which included the Rhodian cities of Lindus, Ialysus and Camirus together with Cos, Cnidus, and Halicarnassus (later expelled). If, as seems likely, the league was a Dorian response to the Ionian Dodecapolis (centred on the Panionion at Cape Mycale), then its origins should date back to at least the beginning of the 6th century BC. By contrast, Herodotus' account of Cleisthenes of Sicyon (5. 67–68) seems to imply that appeals to Dorian ancestry in the Peloponnese may have been restricted to the ruling elites.

In the 5th century BC appeals to a collective Dorian identity became more frequent in mainland Greece, particularly at Sparta whose evocation of Dorian kinship served to justify its intervention in the central Greek region of Doris in 457 BC (Thucydides 1. 107). The exploitation of Dorian solidarity reached its apogee, however, in the course of the Peloponnesian War as Sparta employed the motif of common kinship with its Peloponnesian and Sicilian allies in opposition to Athenian appeals to an Ionian heritage: on several occasions, Thucydides has his Spartan or Syracusan speakers contrast the freedom and courage of the Dorians with the enfeebled slavishness of Athens' Ionian allies (e.g. 5. 9; 6. 77).

From the 4th century BC onwards fewer appeals were made on the basis of Dorian identity, although renewed interest in Dorian origins accompanied the emperor Hadrian's foundation of the Panhellenion in AD 131/32 when adduced proof of being a Dorian foundation was frequently the prerequisite for admission into the league (both Cyrene and Synnada in Phrygia guaranteed their admission by these means). In the same period, Sparta attempted to revitalize its prestige by capitalizing upon its earlier status as an archetypal Dorian city and reviving its ancient customs in an archaizing form (including a "hyperdoricization" of its dialect). In general, however, the ethnic, cultural, and religious connotations of the term "Dorian" became gradually less significant compared with the linguistic definition as grammarians sought to identify a literary Doric dialect (alongside Attic, Ionic, and Aeolic) on the basis of the Doric idiom employed by earlier poets such as Tyrtaeus, Alcman, and Pindar. While the Dorians have figured prominently in the historiography and ideology of western Europe (particularly among German romantics of the 19th century and later the Nazi party), their role within the Hellenic tradition has been less significant, although it is often claimed that the modern dialect of Tsakonian (spoken in the northern Parnon range of the eastern Peloponnese) attests linguistic archaisms that find parallels with the ancient Doric dialect of Laconia.

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See also **Dialects; Hellenes**

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DOWRY

In antiquity, dowry in the form of money, goods, livestock, or land represented the bride's family's contribution towards the establishment of the new household and, while not legally obligatory, was a normal and expected element of prenuptial negotiations, fixed at the time of betrothal. Indeed, since marriage was a private matter between individuals, the provision of a dowry was one indication that a sexual relationship was equivalent to marriage (Isaeus, 3. 78). Dowry was an important expression of social standing and wealth; at Athens in the Classical period dowries for women from rich families could amount to 5–10 per cent of the paternal estate, while for poorer families the proportion of the family property may have been greater still. Dowering the females of the family could represent an onerous financial burden, especially where there were many daughters, and the system may have contributed to the ancient practice of selective female infanticide (Golden, 1981, suggests a 10 per cent rate of female infanticide for Classical Athens). Nevertheless, particularly where women had little if any financial and legal power, dowry was an arrangement that worked to protect women's interests within marriage and to maintain links with their natal families; as such, it must be distinguished from the giving of "bridewealth" where the groom pays money to the bride's family.

Athenian women did not themselves take possession of their dowries; dowry was given by the bride's guardian (*kyrios*, usually her father or brother) to her husband and he administered it, dowry being essentially a transfer of property from *kyrios* to *kyrios*. Yet this transfer was, crucially, conditional; the husband's control of the dowry depended upon his continuing control and support of his wife and, if the marriage failed, the dowry was returned to the woman's original *kyrios*. The return of dowry on divorce was compulsory, including those cases when the wife's natal family instigated the separation and even when divorce was enforced legally upon a husband by his wife's adultery. Failure to return dowered property constrained the husband to pay interest on the original amount at a rate of 18 per cent per annum and failure to do this could result in a legal prosecution. In the case of large dowries, a mortgage (*apotimimia*) equivalent to the value of the dowry was a common prerequisite to ensure repayment in the event of divorce. The destination of the dowry in the event of the death of either spouse depended upon the existence of children: if the wife died childless, her dowry was returned to her father; if the husband died childless, his widow was returned together with her dowry which could be used to redower her for a second marriage. If there were sons, however, they inherited their mother's portion (*metroia*) when they reached the age of majority, yet were obliged to maintain her for life.

A returnable dowry had several important implications. First, it reduced the likelihood of husbands divorcing their wives for trivial reasons and perhaps provided them with a financial incentive to treat their wives well; several texts attest to the power over her man that a large dowry could confer upon a wife through the threat of divorce (Menander, fr. 333 Koerte; Plato, *Laws*, 774c–e). Second, a widowed or divorced woman could return to her father's house with her dowry as a means of support, while the same property in the form of a second dowry could provide an opportunity for remarriage, a frequent occurrence in antiquity. Indeed, the role of the dowry system in the protection of women's interests in marriage is recognized by a legal speech from 4th-century BC Athens which suggests that the rich man who marries a poor girl ought to provide a fictitious dowry that he would be obliged to return in the case of divorce (Isaeus, 3. 35–36). Thus in a society such as Athens, where women did not inherit, dowry can be seen as a daughter's share in the household patrimony, the counterpart of (although not equivalent to) a son's inheritance and, as a form of security, a maintenance fund that attached to a woman throughout her life and which her sons would inherit.

In later Hellenic societies dowry retained its importance within the marriage contract, yet its uses underwent subtle changes. Where women exercised greater financial control, they are found disposing of and bequeathing their dowries in the form of a maternal inheritance, for example, in Hellenistic Egypt, where a daughter's dowry could equal a son's inheritance and could be provided by mothers as well as fathers, taking the form of money and personal property, although not of land. One Alexandrian marriage contract from 92 BC in which the dowry settlement is the crucial component insists that, if the wife voluntarily leaves the marriage, her husband must return her dowry within ten days and, failing this, must forfeit the amount plus one half (Tebtunis Papyrus 104). In the Byzantine period bridegrooms contributed an amount equal to that specified in the bride's dowry contract (*proikosymbolia*) and, while husbands administered the marital funds, the alienation of their wives' dowries was subject to considerable legal restrictions.

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See also **Children; Divorce; Inheritance; Marriage**

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DREAMS

Dreams had begun to be used for divining the future already in ancient Mesopotamia and Egypt. Indeed, the Greeks may well have borrowed from these two great civilizations. The earliest Greek dream on record is Agamemnon's in book 2 of the *Iliad*. It is a false dream sent by Zeus counselling Agamemnon that he will achieve victory if he launches an immediate all-out attack on the Trojans. Homer describes this as an *oulos oneiros*. Although scholars have always translated this as "destructive dream", the adjective *oulos* could also mean "woolly" or "kinky". In the *Odyssey* (book 19) Penelope explains that there are two kinds of dreams: those that come down to mortals through a gate of ivory are false; those that pass through a gate of horn are trustworthy. One speculative commentator ventured that this symbolism arose because ivory is always opaque while horn, if sliced thinly and polished, can be translucent.

The dream in Homer was generally conceived as a personified force that travelled from the realm of the gods to the beds of humans. This view was debated in the Classical period as can be seen in Herodotus' account of the dreams that came to Xerxes, encouraging him to attack Greece. Convinced that these dreams were sent by the gods, Xerxes persuaded his adviser, Artabanus, to impersonate him and sleep in his bed to verify this momentous dream. Artabanus at first protested that dreams are purely products of the inner self: "nearly always these drifting phantoms are the shadows of what we have been thinking about during the day". Yet when he slept in the king's bed, the same dream not only appeared to him, but recognized him as the king's adviser and threatened to burn out his eyes with iron rods if he did not approve the plan to wage war. In later historical periods dreams came to be viewed more as internal states. Although grammatical gender does not necessarily reflect a real-world perception of animateness, it is interesting to note the sex change undergone by the word for dream. It began as a neuter form *to onar*, developed a personified masculine form *ho oneiros*, freely alternated for a long while between masculine and neuter forms, but then exclusively assumed the neuter noun form – *to oneiro* – that it possesses today.

The recognition that dreams were products of the human imagination did not exclude the possibility that they could also be prophetic. Aristotle addressed just this question in his tract *On Prophecy in Sleep* where, like Artabanus, he sceptically contended that dreams were just representations of personal wishes or stimuli felt during sleep; they could only be prophetic in minor ways such as predicting the onset of illness in the dreamer. Dreams were, indeed, embraced as a diagnostic tool by the Greek medical tradition as attested by the Hippocratic texts and by Galen.

Aristotle's sceptical views notwithstanding, the general population continued to hold that dreams could be interpreted to forecast the future. Artemidorus' 2nd-century AD text, *The Interpretation of Dreams*, attested to this public conviction. Artemidorus was a professional interpreter of dreams and the latter portion of his book was dedicated to his son who would succeed him. His instructions are extremely valuable for, unlike dream-interpreting keys (*oneirokrites*) that simply matched symbols to interpretations in dictionary fashion, Artemidorus explained how and why he reached his interpretations of dream symbols. Artemidorus thought it important to travel to understand the customs and cultures of the people whose dreams he was asked to interpret. He also thought that the meaning of symbols varied depending on the individual. One man reported the same dream of himself without a nose at three different moments of his life. The first time meant that he would lose his perfume business; the second time that he would be disgraced (lose face); and the third time, that he would die (since a skull has no nose).

In a gesture towards Aristotle, Artemidorus differentiated so-called "state dreams" (*enypnia*) – produced by current worries, feelings, or wishes – from prophetic dreams (*oneiroi*) that could literally or allegorically tell the future. It was only this latter category of *allegorikoi oneiroi* that required the services of a dream interpreter, although it must have been difficult for anyone to know in advance exactly which kind of dream had been had. Subsequent dream interpreters, including the 4th-century AD Neoplatonist Latin writers Macrobius and Chalcidius, proposed similar divisions of dreams into four or five classes, depending on whether they were true or false, divine or physical, interpretable or not. In denying the significance of "state dreams", ancient dream interpretation dismissed the very sorts of dreams to which Freud would later attach the most significance.

The first response of Christianity to dream interpretation was to outlaw it – a step formally taken at the Council of Ankara

(AD 314). In the Christian view the future belonged to God alone to decide and reveal. Prophecy was neither an appropriate nor a feasible endeavour for lay dream interpreters to engage in. One particular cult the early Church was eager to eradicate was that of Asclepius which boasted hundreds of shrines up and down Greece. Asclepius was a healing god and one of his modes of operation was through a practice that scholars have labelled "incubation". This involved pilgrims attending these Asclepian shrines, and sleeping in the inner sanctuary. There the god would appear to them in dreams, sometimes in the form of a snake, and he would either prescribe a remedy or else directly cure the ailment. The chronically ill 2nd-century AD rhetorician Aelius Aristides presented, in his book *The Sacred Tales*, a record of the dreams he saw and the cures Asclepius recommended he undertake.

The Church realized that it could not wipe out popular beliefs in healing dreams and so adopted a strategy of appropriation. The shrine of Asclepius at the foot of the Acropolis, for example, was converted into a church dedicated to St Andrew, patron of the sick, where people continued to practise incubation.

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See also **Divination**

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DRESS

Dress reveals much about society and culture. Generally, the further one goes back in time, the more difficult it is to establish an accurate history of dress. Greece's climate is detrimental to the preservation of textiles, so scholars must rely on visual and written evidence to determine the dress worn in Greece before modern times.

The earliest evidence for Greek dress dates from the Middle and Late Minoan periods (2100–1150 BC). Frescos, statuettes, vases, sarcophagi, and seals from Crete, Thera, Mycenae, Tiryns, and Tanagra help historians to reconstruct a general picture of Minoan dress. Substantial amounts of gold jewellery survive, including necklaces, earrings, rings, diadems, bracelets, and belts.

The snake goddesses from Knossos in Crete are famous in dress history for their bare breasts. These figurines, made of faience, wear fitted bodices that fasten just below the bustline. Some scholars believe that only goddesses and priestesses wore such revealing bodices since other artwork shows women wearing close-fitting tunics that cover the breasts. Women of all ranks wore bell-shaped tiered skirts, curved apron-like garments that covered both front and back, and belts that cinched their waists. They wore crowns, festoons of pearls, and diadems over dark, curled tresses. A fresco of a woman with reddened lips and accentuated eyes known as La Parisienne makes Minoan women out to be quite glamorous. Women who participated in bull riding wore the same attire as male participants – double aprons with narrow rolled belts and protective coverings around the ankles – suggesting an egalitarianism that women in Greece have not enjoyed since then.

Men appear less frequently in Minoan art than women. Frescos at Knossos and Thera depict men wearing either loincloths or patterned loin skirts decorated with tassels in front. Sometimes men wore tunics edged with decorative bands. Men's hair, like women's, was long and curly. Some images of men, such as the Prince of the Lilies at Knossos, have exceptionally narrow waists, possibly a result of rolled leather or metal belts placed on their bodies in childhood. From the frescos at Thera, it appears that boys wore little more than strings around the waist, or even nothing at all. Children's heads were partially shaved, possibly to prevent ringworm. When not barefoot, Minoans wore sandals or soft pointed shoes.

Minoans had a love of colour and pattern. Clothes were decorated at the edges with patterned bands. Barber (1991) argues that the patterns were woven, but such designs could also have been embroidered or painted on cloth. Remains of a linen tunic discovered in a bronze amphora dated 1000 BC from Lefkandi in Euboea reveal edges decorated with woven and embroidered bands. Ornaments on such bands and in jewellery include rosettes, lilies, birds, saffron flowers, butterflies, double axes, bull's horns, and bees. Minoan dress reveals knowledge of sophisticated cutting and fitting that is atypical of the time. Draping cloth around the body was the norm for contemporaries of the Minoans as well as a mark of civilization. Scholars believe that among early civilizations tailored clothes derived from the wearing of skin garments which were fitted and stitched to accommodate the size and shape of skins.

After the decline of Crete and the destruction of Thera around 1450 BC, Mycenae achieved dominance over Greece. Archaeological finds from Mycenae, Tiryns, and Tanagra show that dress on the mainland was indistinguishable from that worn on Crete and Thera during the Middle and Late Minoan periods. Mycenaean soldiers are shown wearing fringed tunics, helmets, and protective coverings for their shins. During

Greece's Dark Ages the fitted bodices, tiered skirts, and loin cloths disappeared along with the elaborate patterned fabrics. By the time the Archaic period began, the Greeks had donned uncut rectangles of cloth draped on the body. The cloth came off wide, warp-weighted looms, and required no cutting or stitching for use as garments.

The basic piece of clothing for both men and women was the chiton, a tunic-like garment that fastened at the shoulders. It could be long or short depending on the wearer's gender and age. Women generally wore ankle-length chitons while active males and youths wore short ones. The chiton was draped in one of two basic ways – Doric or Ionic – so-called today because each resembled the capitals on architectural columns. The wool Doric chiton was folded over at the top and pinned once at the shoulders with large straight pins. The overfold, which often ended in a patterned band, extended to the waist. This style, termed *peplos*, originated during the Archaic period. The Ionic chiton, an innovation adopted from Ionia, had no overfold. The fabric, either linen or lightweight wool, was fastened several times at the shoulders and along the arms with stitches or small brooches called fibulae, creating a sleeve effect. Belts or loose stitching kept the garment, which was open down the side, in place. Belts with tassels apparently had a seductive quality about them. In the *Iliad* Homer tells of Hera's tasselled belt which Zeus found irresistible.

The chiton has an interesting social history. According to Herodotus, during the Persian Wars the Athenians outlawed the Doric chiton after Athenian women killed the lone survivor of a military campaign by stabbing him with the pins from their dresses. It was replaced with a foreign innovation, the softly pleated Ionic chiton. After the Persian Wars ended, the patriotic Greeks returned to the older indigenous form of dress, the Doric chiton. The Ionian style returned during the Classical and Hellenistic periods. During the Hellenistic period the chiton was belted high, creating an "Empire" waistline. The changing preferences in chitons are evident in sculpture. Artists took great pains to render the details carefully, as seen in the *Charioteer* at Delphi, who wears a long Ionic chiton, and the Caryatid maidens at the Acropolis, who sport Doric chitons.

Greeks wore a variety of wraps, most commonly the himation. In wide use by the late 6th century BC, it was almost always worn over the chiton. The most common method of draping the himation allowed the right arm to be free. Women used their himations as veils when outside the house, since respectable women would cover themselves. Other coverings included the smaller *diplax* and the square chlamys, a cloak preferred by travellers and soldiers since it doubled as a blanket.

Male athletes sometimes performed naked, at other times in a simple loincloth. Greeks prized athletic bodies, grooming and anointing themselves with fragrances and oils. Working-class men and slaves wore a short, rectangular garment called *exomis* which fastened at the left shoulder. Both men and women wore sandals. Jewellery included necklaces, earrings, rings, and pins.

Although we know that the ancient Greeks wore coloured clothes from the paint remaining in the crevices of sculpture and from written sources, our knowledge of colour from visual sources is limited because vase painting does not reveal colour, and the pigment has worn off statues. Pliny mentioned the "flowered colours" of women's clothes. Men and women sported a variety of hairstyles and headgear. Men were bearded with long hair during the Archaic period, but during the Classical period short haircuts and a clean-shaven look prevailed. A broad-brimmed hat called a petasus offered protection from sun or rain. The popular Phrygian bonnet, a brimless peaked cap, reappeared in the Middle Ages, and again during the French Revolution as a symbol of democracy. Women wore their hair long during the Archaic period but bound it in knots and chignons in the Classical and Hellenistic periods with bands, nets, cloth, and metal filets to keep the hair in place.

The dress of Classical Greece has had widespread influence throughout history. During antiquity Greek dress spread to other Mediterranean areas including the Etruscan and Roman worlds. Centuries later, whenever Greek politics, art, or philosophy was ascendant, fashionable dress took on the lines, colours, and details of ancient Greek dress.

Actual garments survive from as early as the 3rd century AD to inform us about the fabrics and construction of clothing during the Graeco-Roman period. Whole tunics come from the Copts, a Christian religious sect living in Egypt who buried their dead fully dressed in the desert. Initially woven of linen on wide vertical looms, the tunic (a Roman innovation) was seamed only at the sides. With the adoption of horizontal looms, the Copts (and presumably others in the Mediterranean) started piecing tunics from narrower widths of fabric and sewing on sleeves. Skilled weavers added colourful tapestry-woven stripes (*clavi*), squares, and roundels of wool. These tunics display motifs typical of the Hellenistic period including detailed portraiture. Gradually, the motifs took on Christian symbolism or changed to Christian imagery.

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See also **Jewellery; Silk; Textiles**

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DYRRHACHIUM

City in modern Albania

Dyrrhachium (now Durres in Albanian, Drasch in Turkish, Durazzo in Italian), situated on the Albanian coast, was founded

in 627 BC by the Corcyreans and Corinthians (Thucydides, 1. 24) and remained an important port and commercial town in antiquity and medieval times; the coins of the town show a cow suckling its calf, symbolizing the dependence of the colony on the mother city. The Greeks named the town Epidamnos; but the Romans preferred the Illyrian name of Dyrrhachion/Dyrrachium (which at first was used only for the upper part of the town), probably because they regarded the second part of the Greek name (recalling the Latin word *damnum*, "damage") as a bad omen.

The Greek town Epidamnos had an oligarchic constitution; trade with its Illyrian neighbours soon made it so prosperous that it could afford to build a treasury at Olympia (Pausanias, 6. 19. 8). Inner conflicts in the 430s BC which then involved Corcyra (modern Corfu), Corinth, and Athens were one of the triggers of the Peloponnesian War. In 314 BC the Macedonian king Cassander took the city, but lost it soon afterwards to the Corcyreans who gave it to the Taulantian king Glaucias. In later Hellenistic times Epidamnos had the reputation of being a dissolute sea port.

As for the buildings of Greek times, several temples are mentioned in inscriptions, among them one of Athena/Minerva and another of Artemis/Diana. Only the sanctuary of Aphrodite has been excavated, bringing to light about 6 tons of mostly late Hellenistic votive figures in terracotta varying greatly in size. Many of them wear Illyrian costume, as also do many people depicted on the numerous grave stelai found in nearby cemeteries, which are often a source for Illyrian names. Although Albanian scholars used to stress the continuity of Illyrian traditions from ancient times until today, there can be no doubt that by the 4th century BC, at the latest, the Greek element dominated the country surrounding Dyrrhachium; many centuries later, Albania's national hero Skanderbeg not only received the inspiration for his name from Alexander the Great (Skanderbeg derives from Alexander bey), but also his helmet with two horns (a copy of which is preserved) was modelled on a similar helmet worn by Pyrrhus of Epirus in 287 BC.

At the end of the First Illyrian War (229 BC) Dyrrhachium came under Roman protection. A *civitas libera* already in republican times and a *colonia* under Augustus, Dyrrhachium was important because of its geographical situation: from the 1st century BC onwards the town was the starting point of the Via Egnatia leading to Thessalonica and then on to Byzantium; it was also the usual port for ships coming from Italy (Brundisium, modern Brindisi) and therefore played a significant role in the Roman civil wars; in 48 BC Pompey had his camp there and was besieged in vain by Caesar.

Dyrrhachium's apogee came after Augustus had stabilized the Roman empire; many remains of imperial times have been found, though modern Durres, with about 80,000 inhabitants and the second largest city after Tirana in Albania, covers most of the ancient city, thus making excavation nearly impossible. In the northern part of the city the Roman amphitheatre (already mentioned in 1510 in Marinus Barletius' biography of Skanderbeg) has been excavated to reveal a typical Roman building, a very rare occurrence in the Greek east but to be explained by the settlement of Roman army veterans. Constructed during the reign of the emperor Hadrian (117–38), the huge, oval ampitheatre measures of 127×103 m (arena 63×39 m) and could seat about 15,000 spectators; people moved in and out by way of subterranean stairs and galleries, which are well preserved in places, while the animals and gladiators entered the arena through big gates in the north and south of the building; an inscription records that 12 gladiatorial fights were given to celebrate the inauguration of a new library. In the western part of the amphitheatre a little chapel was later inserted (probably in the second half of the 6th century); on its southern wall one of the very few preserved wall mosaics of the early Byzantine era (the only one in Albania, in fact) shows the Virgin Mary as queen of the heavens in imperial garb, accompanied by Michael and Gabriel, and nearby St Stephen praying. During the reign of Hadrian a 15-km aqueduct was also built (restored by Severus Alexander 222–35) of which leaden water pipes with inscriptions mentioning the emperor and the officials in charge of the water supply have been preserved; great baths of the 2nd century AD with floor heating and sumptuous floor mosaics have been partially excavated. It is still unknown where the Greek and Roman fortifications were located.

Dyrrhachium was destroyed by earthquakes in AD 314 and 522, and in 481 it was besieged by Theodoric the Ostrogoth; nevertheless the town flourished as an episcopal see and capital of the province Epirus Nova, later a theme of the Byzantine empire.

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See also **Epirus**

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E

EARTHQUAKES

The Aegean region has the highest incidence of earthquakes (seismicity) in Europe. This has had an important effect on both the civilizations and the landscape of the region. Most of these earthquakes were produced by forces connected with large-scale movements of the earth's crust and mantle (plate tectonics).

Earthquakes are vibrations of the earth that are produced when rocks juxtaposed across a fault slide past each other. Some faults slide very easily, so stress on the fault is dissipated continually. However, many faults are ''sticky'' and the stress can build up to much higher levels before the energy is released in an earthquake. The magnitude of an earthquake (the well-known Richter scale) is not a measure of destructiveness but merely indicates how much energy is released. It varies according to the amount of movement of the rocks (from a few centimetres to several metres) and the surface area of the fault that moved (from a few square metres to tens of square kilometers). The amount of vibration felt at a particular place on the earth, and hence the local destructiveness of an earthquake, is called the intensity. It is measured on the Modified Mercalli scale and varies with location. Therefore, each earthquakes has only one magnitude but many intensities. The intensity depends on the distance to the centre of the earthquake, its depth, and the local geology. Many sediments, especially those in recently drained lakes, can amplify considerably the earthquake vibrations and increase the intensity.

Underwater earthquakes or landslides can produce extraordinary waves on the sea called tsunamis (or less correctly, tidal waves). In the open sea tsunamis are typically less than 50 cm high, travel at spends of up to 200 km per hour, and have a wavelength of the order of tens of km: hence they are not notices generally by people in boats. Near to the coast their character changes dramatically – as the sea becomes shallower the wave height increases to up to 50 m. Such waves can be extremely destructive in coastal communities.

The movements associated with an earthquake will generally produce changes in the height of the land across the fault of up to several metres. Along the coast these changes in height will appear as local changes in sea level. Such changes have submerged coastal cities and quarries and left harbours dry. Such local effects should be distinguished from global long-term sea-level rises caused by melting of the ice caps since the peak of the last glacial period 20,000 years ago.

Just before an earthquake there are often changes in the environment, some of which have been used to try to predict the timing of the earthquake. Among these are changes in the water level in wells and in the discharge of springs. The general level of ground noise (very small earthquakes) may also change before an earthquake. Lastly, many people have noticed unusual animal behaviour before an earthquake. If true, this may be related to any of the effects listed above or to changing magnetic and electrical fields. As yet, there has been little success in the prediction of earthquakes.

Seismic risk can also be measured in several different ways, but the most important from a cultural point of view is the maximum intensity or destructiveness of the earthquake. The maximum intensity is much higher in some parts of the Aegean because they lie close to the edge of tectonic plates. The high maximum intensity of the Ionian islands and southwestern Peloponnese is due to the subduction of the ocean floor (albeit thicker than normal) beneath the Aegean Sea. The ocean floor has to bend in order to go down the subdution zone, and this movement causes the earthquakes. High maximum intensity on Crete and Rhodes is also related to the same plate motions, but here the direction of movement is almost parallel to the Hellenic arc (now the Ionian islands, the western Peloponnese, the islands of Crete, Karpathos, and Rhodes, and southeastern Turkey), and hence the two plates slide past each other along transform faults. A zone of earthquakes associated with a tectonic plate boundary extends from the northern Aegean through the Sea of Marmara and across northern Turkey. Most of the other zones of high maximum intensity are related to crustal extension north of the Hellenic arc: this has produced a series of approximately east–west grabens (tectonic valleys). There are still important movements on the Corinthian and Euboean gulf grabens, hence their high maximum intensity. The high maximum intensity of many of the islands in the eastern Aegean is probably related to grabens that stretch from the Aegean Sea itself deep into the Turkish mainland.

There were many earthquakes in antiquity, but few have been identified and studied in detail. The earliest has been

only identified by the effects of the accompanying tsunami. This was an earthquake, or possibly a landslide, associated with the great Minoan volcanic eruption of Thera (modern Santorini) in 1650 or 1450 BC. The tsunami deposited sediments on the adjacent island of Anafi up to a height of 40 m and was still 7 m high when it reached Israel. It must also have devastated settlements on the northern shore of Crete. The earthquake of 464 BC that destroyed Sparta was an important historical event of the Classical period. It was a medium to large earthquake produced by vertical movement on the fault at the base of the Taygetus Mountains. The earthquake and tsunami of 373 BC in the gulf of Corinth were responsible for the destruction of the city of Helice, remains of which have not been located. It was probably 7 km west of Aigion, on the western gulf. Contemporary writers noted that wild animals and insects left the city during the five days preceding the earthquake, and this has often been cited when premonitory animal behaviour is discussed. The city was submerged by movements on the fault, and its destruction was completed by the tsunami and further earthquakes along this fault. The earthquakes that toppled the Colossus of Rhodes in 222 BC caused parts of the land to rise almost 4 m, which was one of the largest earth movements in the region during the last 10,000 years. The harbour at Phalasarna in western Crete has been lifted up by over 7 m since antiquity. This must have occurred during several earthquakes, including the devastating earthquake of AD 365 centred south of Crete. The ensuing tsunami caused the loss of thousands of lives and extensive damage throughout the eastern Mediterranean. Another earthquake in AD 551 is known to have caused drastic damage further east, and may have also contributed to the uplift. A recent tsunami associated with a volcanic eruption was that of the Colombo Bank volcano in AD 1650 that produced waves 20 m high on the coast of Thera. Devastating earthquakes occurred even more recently in the Cyclades in 1956, Corinth in 1961, and Kalamata in 1986.

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ECOLOGY

Greek ecosystems go back to the Tertiary period, several million years ago, when the climate was much wetter than today and the predominant vegetation was probably evergreen forest. These subtropical "laurisylvan" forests perished in the cold, drought, and fire of the Quaternary period, but their rustle and scent still faintly echo and breathe in the laurel and arbutus jungles on the north sides of west Cretan mountains.

Mediterranean ecology is determined partly by its history. For most of the last two million years Greece was colder and drier than it is now, the local effect of the glaciations of higher latitudes. Mediterranean-type plants retreated to favourable localities. The predominant vegetation was steppe-like grassland, sometimes with scattered trees. Forests were very local. Endemic plants – those confined to Greece – had nowhere to retreat to, and presumably sat out the glaciations on or near the mountains and gorges where many of them now grow. Significantly, very few endemics are forest plants.

Hundreds of thousands of years of cold and drought were interrupted by periods of thousands of years of climate more like the present. The present such interglacial began some 14,000 years ago. In the first half, Greece was populated mainly by deciduous trees like those of central Europe today: deciduous oaks, lime, alder, hazel, and even such a northern tree as birch. These indicate a wetter, probably less seasonal climate. From the 5th millennium BC onwards, the climate changed to approximately the semi-arid present. Middle European trees died out or retreated to unusually cold places and what are now thought of as Mediterranean plants became dominant.

The soils of Greece are varied, but mostly rich in lime. Soils come from three sources: weathering of the underlying rock; material eroded and washed in from elsewhere; and windblown dust from the Sahara. Weathering and erosion have been more active at times in the past than they are now. Erosion has washed material off hillsides and out of gullies and the resulting deposits have built up most of the basins and river deltas which are the best agricultural land. Lack of soil precludes most agriculture but not wild vegetation: many forests in Greece, and some olive groves, grow out of pockets and fissures in bare limestone.

Greece has always had browsing animals. Elephants and other great tree-breaking beasts were probably exterminated by Palaeolithic men, and do not appear in this interglacial. Deer, wild oxen, wild swine, and smaller herbivores such as hares survived into historical times. From the Neolithic onwards, people have replaced wild herbivores by domestic livestock. Each species of animal has its likes and dislikes: goats, for example, are fond of prickly-oak (despite the prickles) but will not eat pine unless they have to. How the impact of wild beasts differed from that of domestic animals is not known: we do not know how many deer there were in aboriginal times, still less what they ate.

Crete, and probably the other islands, tells a different story. It had tiny elephants, mini-hippopotamuses, and slow deer, but no carnivore fiercer than a badger. Lacking predators, these animals would have produced a state that a modern ecologist would regard as excessive browsing. The transition after human settlement to an island dominated by sheep and goats may have had less effect than on the mainland.

Fire is a major ecological factor. Every summer there are countless wildfires in Greece, which are regarded as an abnormality and a tragedy. In reality trees and plants are combustible not by misfortune but by adaptation. They burn because they make flammable oils and resins; it is their business in life to catch fire (by lightning or otherwise) and burn up their less fire-adapted competitors. Some survive a fire by their thick bark or well-insulated growing points; others perish but come again from seed.

During the Neolithic and Bronze ages the landscape was affected both by increasing human activity and by a change to a drier climate. People grubbed out (uprooted) forests on good soils to create farmland; on the remaining roughland they replaced the native mammals by goats, sheep, and cattle. Forests retreated to places with moisture or good root penetration, being replaced by maquis or savanna. Undershrubs benefited from the changes to establish areas of phrygana. The date, nature, and consequences of deforestation are controversial, but there is no good evidence that Classical Greece was more wooded than Greece is today.

These changes had more effect on some groups of plants than others. Cliff plants were little affected. Plants requiring deep soils were almost annihilated by agriculture, which changed the balanced of the vegetation. Part of the reason why Greece is now thought of as a land of evergreen trees is that deciduous trees, especially oaks, grew on soils suitable for cultivation and were thus subtracted from the landscape: in recent decades, as cultivation has retreated, they have recovered some of the lost ground.

By Classical times the ecological changes were largely completed. Mostly the landscape looked not very different from Greece today, leaving aside urbanization, road making, and bulldozing. One important difference is the disappearance of fens, mostly destroyed in the 19th century. Another factor that the modern visitor may not appreciate is the great historic importance of woodcutting. Most Greek trees (even some conifers) sprout when felled and form coppice stools. In many areas wood was scarce, and even on cliffs trees were repeatedly cut down, and repeatedly sprouted, down to the mid-20th century.

In the last few decades, as land uses have been concentrated and intensified, much land that was once farmland or pasture has been abandoned. Woodcutting has almost disappeared: such firewood and charcoal as are still used come mainly as a by-product from an increasing are of olives and walnuts. Greek vegetation is very resilient, and the result is a great increase in the quantity of natural vegetation. Terraces become roughland, maquis grows up into forest, rivers are lined with jungle, and savanna becomes infilled into forest. One consequence is an increase in fires, since much of the new vegetation consists of pines and other fire-promoting plants.

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See also **Climate; Forestry**

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ECONOMY

The modern concept of a national economy is far removed from the origins of the term itself. Modern economists have developed abstract and analytic concepts and built up mathematical models to measure and quantify economic activities. Gross national product, inflation, and levels of employment are all criteria which are used today to analyse a country's economy. Such criteria cannot easily be applied to ancient Greece, so that economic quantification often proves controversial or elusive.

The discipline of ancient and modern economists differs in many ways. Modern study of the ancient Greek economy was transformed by the publication of M.I. Finley's *Ancient Economy* in 1973. To understand the economy of ancient Greece, and to consider the economy in the Hellenic tradition, we must embrace the changing attitudes towards our understanding of the Greek economy.

The word ''economy'' derives from the ancient Greek term *oikonomia*. In antiquity *oikonomia* had a meaning different from that of ''economy'' as we understand it today. *Oikonomia* was far more closely associated with the organization and management of the household (*oikos*). The use of the word later extended beyond its strict application to the household but there is only limited evidence to suggest that the ''national'' economy was considered. The ancient Greeks had no developed literature on or theory of economics. Xenophon's *Oeconomicus* is concerned with running the household and estate of a wealthy citizen; his *Poroi* (Resources) discusses ways of increasing revenue for the city, but is limited in explaining the means by which such improvements might be made. The *Oeconomicus* attributed to Aristotle is a collection of anecdotal stories about fundraising and the use of money, with minimal analysis of economic systems. Finley sought in vain for discussions and conscious theorizing about economics in ancient literary sources.

In ancient Greece the principal economy was that of the household. This was predominantly a rural economy. Agriculture was supplemented by the raising of livestock and in some areas by fishing. Other spheres of economic activity are also discernible. The Greek ideal of self-sufficiency (*autarkeia*) was aspired to but rarely achieved. Not all communities were able to provide all their own produce from their local rural environment. As a result, produce, among other things, was traded over varying distances in order to provide communities with the goods that they required. This trade existed on different geographic scales – local, regional, and international. Not all communities needed to rely on long-distance trade or had populations large enough to make demands beyond their immethate region. In this respect, Athens was exceptional among Greek communities not only for the large size of its population but also for its need to supplement its large domestic produce with the import of agricultural produce from abroad.

The primacy of the rural economy in ancient Greece appears as only one dynamic element in what is emerging as a complex picture of the economies of ancient Greece. The function of slaves and of non-slave labour, the role of money and coinage, the social behaviour and value systems of the urban elites in ancient Greek communities, the role of religion and temple economies, the importance of natural resources (mineral, geological, and timber), the dependence on maritime transport, and the significance of war, are all essential factors to be taken into account in understanding ancient Greek economies.

The ways in which the economies of ancient Greece have been approached in recent years have changed, and the different methods of analysing them have shed light on their nature. The established views of the past are being rejected in favour

of more contextualized views of economic activities in ancient Greece.

Distinctive spheres of activity in ancient Greece can be labelled "economic" in so far as they related to the use of money, affected the finances and distribution of resources in the community, or dictated or involved the role of wealth. But understanding these spheres of activity is now seen as impossible unless their social, political, and cultural context is also taken into account.

Traditionally, students of the ancient Greek economy have been divided into "primitivists" and "modernizers". The primitivists have concentrated on the wider activities of society, paying less attention to the small minority, the elite, who have tended to dominate the surviving source evidence. The modernizers, by contrast, have tended to overestimate the importance of the elite and neglected the interaction of the numerically greater sectors of society. This polarization of approaches makes it impossible to see how all levels of Greek society interacted.

Another feature of the debate on the ancient Greek economy has been a distinction between the approaches of the substantivists and the formalists. The substantivists believe that the ancient Greek economy, while not as sophisticated and developed as the modern economy, betrays features and rationales which can be isolated and analysed independently of their sociopolitico context. By contrast, the formalists believe that the ancient Greek economy was not only less developed than the modern economy, but was embedded within society. The ancient economy can be understood only in terms of social and political relationships. Movement of goods, for instance, may not have been motivated by economic gain, but by considerations of reciprocal gift-giving.

There has been a move away from these two sets of polarized approaches towards a more comprehensive and pluralistic understanding of the ancient Greek economy. It is more accurate to speak of ancient Greek economies, since there was no monolithic Greek economy. Greece never existed as a single cellular entity but consisted of many different communities which interacted individually with the communities and peoples of the Mediterranean and beyond. The economy of ancient Greece should therefore be seen as numerous interrelated dynamic economic activities. These activities sometimes involved only some segments of or groups within a community, and at other times affected the whole community.

The central importance of agriculture to Greek communities led to the movement, often over large distances, of both essential and luxury items. Trade in grain in antiquity is a feature of political and economic history. Athens in the 5th and 4th centuries BC had developed such a large population that there was no guarantee that the large supplies of grain from Athenian territory, including the important islands of Lemnos, Imbros, and Skyros, could provide for the city. In some years a shortfall in domestic production would have signalled shortages in Athens. The demand for grain stimulated an increase in the movement of merchants to Athens. Virtually all the grain supplied to Athens arrived by sea. This ensured that the Piraeus, Athens' harbour, prospered and attracted numerous foreigners and traders. While it would be unfair to say that the economic prosperity of the Piraeus grew out of the trade in grain, the movement of staple crops obviously provided an essential commodity to a highly demanding market. In the 5th century BC the growth of the Athenian empire had the important effect of providing considerable security for maritime transport in and around the Aegean. The loss of its empire by the end of the 5th century BC forced Athens to rely much more heavily on foreign alliances and institutional or legal reforms to regulate and control the movement of grain to the city.

For Athens, the most developed of the Greek polis economies, much more evidence exists for the use of credit and the role of banks and moneylenders than exists for any other ancient Greek community. Banking played an important role not only in financing maritime commercial enterprises but in all kinds of economic activity. Financial confidence was often entrusted to ad hoc groups of individuals who would act as guarantors of capital. Many surviving documents, the majority in the form of inscriptions on stone, provide information us about the use of security and capital.

Unlike many communities, Athens had the advantage of enormous wealth in its silver mines. The extraction of silver from the hills of Laurium provided the city with the raw material with which it manufactured its famous silver coinage, characterized by the owl stamped on the coin. The Athenian owl became a symbol of a guaranteed high-quality silver coinage. Its circulation during the 5th and 4th BC centuries was greater than that of any other Greek coin. The silver mines of Attica therefore played a huge role in promoting the economic welfare of the city.

The extraction of silver from Laurium depended on slave labour. Many Greek communities relied on unfree labour for their workforce. The very different and almost exclusively agrarian-based economy of Sparta was founded upon the peasant workers, the helots, who were subordinate to the Spartans. In Athens too the slave labour force which worked in the Laurium district was an essential part of the mining economy. Slaves played an important role in other areas of life. In Athens, however, it is less than certain that all farms would have used slave labour. Unlike Sparta, with its subjugated helot workforce, the typical Athenian farm was probably a smallholding providing at least sufficient produce for the household. Slaves worked in many other areas – in industries such as shieldmaking, or in crafts such as painting pots, for example, and in construction, such as on the building projects of the Acropolis in the 5th century BC.

But the economies of Greek communities also exploited a more fluid population of non-citizens: foreigners. In Athens, resident foreigners were designated as "metics" and would pay a special tax. In other commercial centres also foreigners played an important role, such as on Delos, Rhodes, and in Corinth. It was normal that only citizens could own land in a Greek city; foreigners were sometimes granted the right to do so, but only as a reward for services to the city. The non-citizen population of the Greek city was highly fluid and transitional. Warfare and economic depression would probably see falls in this mobile population. Some cities, including Athens, had sufficiently large foreign populations to establish foreign cults and maintain a more permanent community.

Religion and warfare were of central importance to the economies of the Greek world. Religion, centred on the worship of gods in temples, encouraged the rise of temple economies. The built temple often served as a storehouse for the wealth and dedications offered to a god. The temples of Apollo at Delphi and Athena at Athens contained vast amounts of wealth at the

heights of their success. Revenue from the cities of the Athenian empire was hived off as offerings to Athena in her temple on the Acropolis, and the monies dedicated to her from Athens' allies were recorded on stones and displayed outside the temple (the so-called Athenian tribute lists). The role of the temple in the movement of wealth and as a repository for wealth which could be used by a Greek city is best illustrated by Pericles' statement of the Athenian financial reserves at the opening of the Peloponnesian War (Thucydides, 2. 13. 2–6).

One of the greatest drains on the economic resource of a Greek community, and particularly a city, was warfare. The citizens of the polis in the Archaic and Classical periods typically provided the main infantry fighting force for the army. This minimized the expenditure a community had to meet for sending out a military force. The expense of warfare put an immense strain on many communities. In the 5th century BC Athens spent more on warfare than any other city. The cost of running a navy of 100 or more ships was huge. The services that the wealthiest Athenians were required to perform on behalf of the city included trierarchy – providing for the equipping and manning of warships – which helped to reduce the cost to the city of maintaining a fleet. For many Greek cities such expenditure was impossible. The other great expense of warfare was the cost involved in building and maintaining the defences of a community, in particular the cost of building city walls. Emergency taxes were sometimes required to meet the cost of military operations; special taxes were on occasion imposed if defences were required hastily. Expenditure on civic defence was large, as was the cost of providing patrols and mobile defence forces such as cavalry. Cavalry power was often provided by the wealthiest citizens of any community; the cost of maintaining a horse throughout the year was high. Despite the dependence on the wealthy elite to defray some of the expenses of warfare, it was inevitable that many cities relied on their own finances to pay for military activities. The use of the financial reserves of temples was central to providing money to the city.

It becomes clear that the economic organization of ancient Greek communities differed in many respects from those of a modern state. Individuals and households were essential to the shaping of ancient Greek economies. In the same way, the community depended to a large extent on the household and the individual for financial support of the city. Over time the smaller-sized community of the polis was overtaken by the much more richly endowed political systems of the kingdoms which dominate the Hellenistic period. The Roman domination of the Mediterranean illustrates the rise of an even greater power than the Hellenistic kingdoms. Despite the changing shape of the political world, the economies of the Greek communities which made up the ancient world remained remarkably consistent and dependent on the household economy and the wealth of the richer individuals or elites within the community.

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See also **Agriculture; Banking; Coinage; Finance; Slavery; Taxation; Trade**

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EDUCATION

The poems of Homer depict aristocratic youths attending their seniors much in the manner of esquires attending the knights of the western Middle Ages. There was doubtless a similar educational purpose, both in teaching skills of warfare and in inculcating heroic *arete* (valour). Apart from the long list of the centaur Cheiron's students (which gave rise to the lost Hesiodic *Praecepta Chironis*), the tale of Phoenix's instruction of Achilles

(*Iliad*, 9. 432–619) involves the employment by a father of a private tutor. His noble birth possibly foreshadows (unless it is a later ad hoc invention) a formal institution known among the aristocracy of some states in the Archaic and Classical periods, when it involved a strong pederastic element. In this institution an older man courted (in Crete abducted) a youth whom he initiated into all aspects of civic life.

Other poets too were a major early source of education for the Greeks but although they did give practical information they, like Homer himself, were regarded chiefly as teachers of ethical ideals. Although their position was assailed by philosophers (first as early as the 6th century but most notably by Plato), it survived to the end of the Classical period. Thereafter the poets were read more for their artistry. Homer's paramountcy (and longevity) is marked by the commentary of Eustathios, a 12th-century bishop of Thessalonica, which is the lengthiest commentary ever written on any ancient author.

The earliest formalized education in the Greek world was probably the Spartan *agoge* (training). Though attributed to a single early enactment, this was probably a gradual development resulting from the need for internal self-defence by the vastly outnumbered Spartiates. By the Classical period it certainly involved the compulsory, state-run education of males from the ages of 7 to 29. Since the aim was military preparedness, it gave minimal attention to literacy and maximum attention to training for war through sport and dancing as well as mock fighting and hunting. Toughness was attained through starvation, inadequate bedding in winter, and sleeping rough (excesses of severity, such as the whipping competitions that could lead to death, belong to the Roman period). Girls were given a similar but less rigorous training. A gentler and briefer Athenian analogue was the 4th-century *ephebeia*, which gave primarily military instruction to youths who entered barracks (as at Sparta) in their eighteenth year. No longer compulsory by 305 BC, the two years of service were reduced to one in 282 BC, and thereafter the *ephebeia* became increasingly pacific. Except in Macedon, where ephebes continued with strictly military training until 168 BC, parallel institutions in other cities degenerated into young gentlemen's associations, but in places lasted until the 4th century AD.

It is not known when private group schooling came into existence. The earliest schools reliably mentioned were at Chios (Herodotus, 6. 27) and Astypalaea (Pausanias, 6. 9. 6) in the 490s BC and at Troezen (Plutarch, *Themistocles*, 10) in 480 BC. The number of schools grew throughout the Classical period even in small cities (Boeotian Mycalessus must have possessed at least three schools in 413 BC, because Thucydides [7. 29. 5] reports the slaughter by Thracian mercenaries of all the boys in "the largest one"). The early, aristocratic emphasis was on gymnastics and music, the latter constituting poetry, dancing, singing, and the playing of an instrument (by the early 4th century BC the lyre had ousted the *aulos*). It is not known if there were any schools for literacy in the early part of the 5th century, but by its end these predominated.

Most of the information known about Classical education is 4th-century BC Athenian. Boys (and girls according to the evidence of vase painting) attended – but not necessarily all of – the usually separate schools of the *paidotribes* for gymnastics, the *kitharistes* for music and lyric poetry, and the *grammatistes* for reading, writing, other literature, and arithmetic. At the end of the Classical period Sicyon introduced drawing into the artistic curriculum. Teachers were freemen, sometimes with slaves as assistants, poorly paid and held in low regard. Boys were accompanied to school by a *paidagogos*, a trusted slave responsible for behaviour and moral upbringing. Lessons were learned largely by rote and encouraged by the cane and regular public competition (Plato (*Laws*, 819b–c), approvingly mentions arithmetical games). Holidays coincided with festivals.

Higher education was provided in the last third of the 5th century BC by sophists, itinerant teachers who lectured for a fee on a wide range of subjects. Hippias' professed expertise in arithmetic, geometry, astronomy, and music is the origin of the western medieval quadrivium, while Gorgias' instruction in Sicilian techniques of rhetoric transformed prose writing and ultimately the future direction of education. In the 4th century BC Isocrates and Plato opened schools, the former to all who could pay the fee, the latter only to chosen students. Both men were influential educational innovators (Plato in part through the utopian theories of his *Republic* and *Laws*). Isocrates' aim was to produce future political leaders, primarily through rhetoric, a subject that Plato was late in allowing at his Academy, where philosophical and mathematical studies were supreme. Plato's insistence on propaedeuric courses in geometry and his use of specialist teachers may be seen as the origin of secondary education, while his scientific interests inspired Aristotle, his pupil of 20 years, to open a school of his own (the Lyceum) in 335 BC where the natural sciences were vigorously pursued.

During the Hellenistic period there was both a huge expansion and a definitive formalizing of education that extended to the introduction of examinations. Whereas Diodorus Siculus' claim (12. 12. 4, 12. 13. 3–4) that Charondas deemed literacy so important that he legislated for universal education at public expense is a muddled retrojection (to the 6th century BC, and a transplantation from Catana to Thurii that was founded in 444/43 BC), Teos, Miletus, and Rhodes now certainly received huge benefactions that made universal education (for boys) a possibility, while elsewhere schools were regularly subsidized by the municipality that itself contracted the teachers. Education for girls definitely expanded, and evidence suggests that even slaves were occasionally allowed schooling (there is firm later documentation from Graeco-Roman Egypt). All children's educational activities, including gymnastics and music, were now concentrated into a single building. The age of entry to primary school varied: the Stoic Chrysippus, who emphasized the pedagogic importance of well-spoken nursemaids, suggested three, Aristotle five, and Plato six, but seven was more normal. Writing materials were more readily available and tablets with copied exercises survive. Literacy was taught through letters, syllables, words, and finally short continuous passages that were always difficult to read for lack of word division. Memorization was still dominant. Arithmetic involved little more than counting. Secondary education was largely for the study of Classical literature under the *grammatikos*, but a general education (*enkyklikos paideia*) of mathematical subjects, astronomy, and music played a minor role. Higher education in literature, rhetoric, and philosophy was available in many larger centres, but most of the best teachers worked in Alexandria, Athens, and Pergamum. Medicine was taught chiefly at Alexandria, Cos, Ephesus, and Pergamum.

Roman education was closely patterned on Greek: any Roman with cultural pretensions was bilingual; Roman aristocrats employed Greek-speaking tutors for their children; some if not all of the earliest Roman schools taught Greek; and the curriculum of the Latin schools was based on the Greek. The main changes in the Greeks' own education was the introduction of the study of grammar in its own right in the 1st century BC through the influence of Dionysius Thrax, the deliberate choice of an archaizing form of the language increasingly distinct from that which was spoken, and an increasing emphasis upon rhetoric. This latter involved training in often extemporary forensic and epideictic oratory, the analysis of numerous kinds of speeches, and the formulation of strict rules for them. During the Second Sophistic (*c.*AD 60–410) declamatory displays became a major form of entertainment (and tool for the recruitment of students).

Christian emphasis on God's written revelations and the need for their interpretation fostered literacy in the Byzantine world (Maximos Planudes' complaint that it was not lucrative is satirical). Despite periodic monastic attacks, pagan literature continued to form the base of secular education: its defenders claimed that it was allegorical, foreshadowed Christianity, or that its resplendent form should be imitated even if its content was rejected (see St Basil's *Address to Young Men*). Persecution for paganism (most notably of John Italos in the 11th century) was remarkably infrequent and mild. Scientific subjects, however, were not usually encouraged.

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See also **Literacy; Rhetoric; Schools; Sophists**

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EGYPT

It was from the time of the New Kingdom (1550–1069 BC) that contact between Greece and Egypt became established. By that time Egypt was already a land of great antiquity with a flourishing native civilization. Over the years the Greeks established trade and political links with Egypt. Parts of the country gradually became famous centres of Greek civilization, coexisting alongside the ongoing native culture.

After a period of internal political instability in the 7th century BC, Egypt was reunited and stabilized during the reign of the pharaoh Psammetichus I (664–610 BC). Needing economic resources to make of Egypt the great nation that once it was, he developed a large-scale policy of trade relations with the Greeks and with the Phoenicians in the Levant. One very important result was the foundation of the Greek colony of Naucratis in the Nile delta, some 80 km southeast of the later Greek city of Alexandria, on the Canopic (or Rosetta) branch of the Nile. Naucratis was an important town in antiquity, though very little of it remains today. Excavations there have produced important finds of closely datable Greek pottery. In the 6th century BC the pharaoh Amasis permitted the Naucratites to levy taxes on imports and exports from river traffic, thereby ensuring their prosperity, and the Greek historian Herodotus, who wrote about Egypt in his *Histories*, mentioned various Greek temples in the city. During the reign of Amasis, the Hellenion, a Greek shrine, was established at Naucratis jointly by Ionian, Dorian, and Aeolian Greeks from the Greek islands and Asia Minor. The most famous native of Naucratis was the Greek writer Athenaeus (*fl. c.* AD 200), the author of the *Deipnosophistai* (*The Learned Banquet*), a highly important work relating supposed conversations at a fictional banquet lasting several days. It contains a wealth of antiquarian information and excerpts from a vast number of earlier, largely disappeared Greek texts. Greeks from all over the Greek world also came to live elsewhere in Egypt at this early period, many enrolling as mercenaries in the pharaonic armies.

Egypt was conquered by the Persian great king Cambyses in 526/25 BC and, though there were periods of revolt and independence, it remained an uneasy, far-flung province of the Persian empire (as such becoming a theatre of minor operations in the Peloponnesian War when Persia became involved in this Greek conflict) until the arrival of Alexander the Great in 332 BC. Alexander invaded and conquered Egypt in the course of his

campaign to subdue the Persian empire. He was welcomed as an alternative to the hated Persian rule. Either before or after his legendary trip to the Siwa oasis in the Western Desert, where he visited the oracle of Ammon and allegedly sought recognition as the god's son, Alexander founded his first city named "Alexandreia", on the Mediterranean coast on the western branch of the Nile delta. It is at this point that we can meaningfully begin to speak of a Greek Egypt, although Alexander did not live to return there.

After Alexander's death in Babylon in 323 BC and the subsequent division of his empire, the satrapy (province) of Egypt came under the control of his Macedonian boyhood friend and later general, Ptolemy, son of Lagus. Ptolemy diverted the funeral cortege of Alexander (en route to Macedonia) to Egypt, burying the coffin first at the old dynastic capital Memphis (south of Cairo) and then in a magnificent tomb in Alexandria which later became the burial place of the Ptolemaic kings and the focus of their ruler cult. The site of the tomb has not been discovered.

Alexandria had functioned as a Greek city from soon after its foundation and, after Ptolemy declared himself king of Egypt in 305/04 BC, became the glittering capital of the Hellenistic empire, called Ptolemaic after his name. Over time Alexandria replaced Athens as the greatest city of Greek culture. The city was endowed with splendid buildings aligned on a grid system with wide thoroughfares, and it was proverbially wealthy in the works of contemporary authors. The Ptolemies actively encouraged Greek immigrants to Egypt. Many were merchants lured by the economic prospects of Alexandria (which soon became a great trading centre); others were professional soldiers given ownership of allotments of land (known as cleruchic land) throughout Egypt in return for their military service. The early Ptolemies actively fostered the development of the famous library of Alexandria, to which we can credit the preservation, copying, and transmission of much ancient Greek literature, and the Mouseion (literally "the shrine of the Muses"), a residential study centre for scholars which acted as a magnet for the greatest Greek writers and thinkers of the day.

Greek cities, many with Ptolemaic dynastic names such as Ptolemais, or Greek theophoric names such as Apollinopolis, grew up throughout Egypt. Important collections of Greek documents written on papyri (a writing material made from joined strips of the papyrus plant, native to Egypt and used for native Egyptian hieroglyphic writing for millennia) attest to a vibrant Greek lifestyle in many provincial areas of Egypt. The desert environment of much of Egypt is ideal for the preservation of papyrus, although little remains from the city of Alexandria or the rest of the Nile delta because of its comparatively moister climate. The Zenon, Tebtunis, and Oxyrhynchus collections of papyri, to name but a very few, have greatly increased our knowledge about the Greek way of life in Ptolemaic Egypt, and the interaction between Greeks and Egyptians, a very important subject for the question of the Hellenization of Egypt. Occasionally the papyri contain political insights, and fragments of hitherto lost Greek literature, most notably large sections of the plays of the 4th-century BC Greek comic poet Menander of Athens (which attests to his considerable popularity in Egypt). There are also private letters, wills, contracts, marriage agreements, and financial accounts, written both in Greek and in the native language known as demotic, with the result that we know much more about the private lives of the Greeks living in Ptolemaic Egypt than we do about Greeks elsewhere in the Hellenistic empires. It appears that the Greeks remained largely Greek, although many native Egyptians tried to assimilate themselves by learning the Greek language, and adopting the veneer of a Greek way of life in order to ascend the social and professional ladder. Archaeology shows that Egyptian decorative motifs were adopted by Greeks living in Egypt from early on, but these tended to be grafted on to identifiable Greek structures. The current excavations in the harbour of Alexandria may well extend our knowledge in this area.

Ptolemaic Egypt grew into arguably the most powerful of the Hellenistic empires in the 3rd century BC. At that period it was characterized by good kings and relatively stable government, and the development of the most powerful ancient navy of all time under Ptolemy II Philadelphia (ruled 285–246 BC) meant that Ptolemaic Egypt became a major player on the Mediterranean stage. Its navy took on the protection of the Greek islands against the scourge of pirates in the Aegean (attested through honorary inscriptions at Delos and elsewhere). Egypt also established hegemony over Cyrenaica (which had been colonized by the Greeks since the 7th century BC) and Cyprus, and developed a flourishing commercial relationship with the independent Greek island of Rhodes. Military outposts were established in several places, and Egypt was always an active observer of, if not always an active participator in, political events in Greece and Asia Minor. There is evidence of some involvement against the Macedonian Antigonid kingdom in mainland Greece, and several wars were fought in the 3rd and 2nd centuries BC against the Seleucid empire of Syria over the area known as Koile ("Hollow") Syria, roughly the area we consider as the Levant, or Middle East.

Greek relations with Upper Egypt (the area known as Nubia) were not always happy, and native revolts and even temporary secession are attested at the end of the 3rd century BC. Perhaps as a means towards internal cohesion, the Greek kings allowed, or possibly ordered, themselves to be depicted in Egyptian garb in statues and temple reliefs for native consumption, many examples of which exist today. Several took pains to foster the ancient native religion of Egypt and generously endowed various non-Greek cults and temples, such as those of the Apis bulls at Saqqara, near the old dynastic capital Memphis. During the Ptolemaic period, huge temples very much in native style were built at Kom Ombo (Ombos in Greek), Edfu (Apollinopolis Magna), and Dendera (Tentyra), and Ptolemy V had a coronation ceremony in which he was crowned pharaoh, a fact to which the famous Rosetta Stone refers. Ptolemy I is usually credited with the creation of the hybrid cult of the Graeco-Egyptian god Sarapis, perhaps intended to appeal to both nationalities, who was worshipped at important shrines at Memphis and Alexandria. Still, it appears that the Greek kings remained very much Greek in their upbringing, outlook, and personal behaviour, and the ancient evidence attests that the last Ptolemaic ruler, Cleopatra VII, was the first monarch to speak native Egyptian. From the time of Ptolemy II, the kings with a few exceptions (i.e. marriages to politically useful Greek princesses from other Hellenistic empires) practised brother–sister marriage, and this remained the norm until the end of the dynasty. As a result, the family line remained Greek, despite occasional evidence of adulterous liaisons.

In common with the other Greek empires of the east, the Ptolemaic dynasty could not ignore the growing might of Rome, which from the 2nd century BC onwards gradually incorporated the Hellenistic kingdoms into its own territory. Roman power was invoked on one or other side of disputing Ptolemies, and by the beginning of the 1st century BC the Greek throne of Egypt was secure only through the intervention of Rome. After her famous liaisons with Julius Caesar and Mark Antony, and the defeat of her forces and Antony's by Octavian (later to be Augustus, the first emperor of Rome), Cleopatra committed suicide in 30 BC and the Ptolemaic dynasty ended. Her sons by both Romans were soon killed. Egypt passed into the possession of Rome and soon became the personal property of the Roman emperor of the day, governed for him by an equestrian prefect.

The Greek population of Egypt, however remained and carried on with their lives much as they had always done, with the exception that there was now a foreign overlord. But Greek language and administrative procedures were retained for another 300 years. The flourishing economy created by the Ptolemies over centuries meant that Egypt's prosperity was a jewel in Rome's crown, and the huge grain ships which sailed from Egypt every year were a vital source of food for the Roman people. Alexandria grew into one of the largest cities of the Roman empire, and continued the tradition of Greek scholarship (both pagan and Christian) championed by it since the 3rd century BC. At the end of the 3rd century AD Egypt passed into the control of the Greek Byzantine empire based in Constantinople, but it was too far away from the political centre for much effective involvement on the part of the imperial government.

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See also **Ptolemies**

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ELEUSIS

City in Attica

The most important town in ancient Attica after Athens and the Piraeus, Eleusis is located 24 km northwest of Athens on a landlocked bay and at the head of the fertile Thriasian plain, in antiquity the region's main wheat and barley grain producer. In Greek mythology the Thriasian plain was the first to be sown with seed and to yield crops. Eleusis was strategically placed, as it lay opposite the island of Salamis and at the junction of the trade routes from Attica, central Greece, and the Peloponnese. Eleusis, Panacton, and Phyle served as border forts for the western defence of Attica.

The site dates back to at least the Early Bronze Age. Current excavations have revealed on the west slope of the acropolis a small deposit of Early Bronze Age remains, Middle Bronze Age house walls, and Late Bronze Age walls; in the 15th century BC a porched hall (megaron) was built on the site of the Hall of Mysteries, the main cult site of the ancient city. The relationship between Athens and Eleusis during the prehistoric period is not clear, although Athenian legends speak of wars between Athens and Eleusis during the Late Bronze Age, until Theseus unified Eleusis and 11 other Attic towns under the hegemony of Athens. All that can be said with certainty is that, on the basis of archaeological and historical evidence, Eleusis was subject to

Athens at least as early as the 8th century BC. In subsequent centuries Eleusis grew ever greater in size and importance, thanks to its Panhellenic Mysteries of Demeter and Persephone. Eleusis was devastated in 480/79 BC by the Persians (whose breach of the walls is still evident), but was almost immediately rebuilt by the Athenians. The city enjoyed prosperity throughout the Classical and Hellenistic periods. Later on, Roman aristocrats and emperors like Hadrian built up the sanctuary. After the Sarmatian Costobocs invaded and sacked the city in AD 170, the emperor Marcus Aurelius restored the site upon his initiation (in 176 he had become the only lay person to enter the "Holy of Holies" in the sacred Hall of Mysteries). Eleusis suffered irreparable damage at the end of the 4th century: in 391 Theodosius I proscribed all pagan cults, including the Eleusinian Mysteries, and then four years later the Visigothic army of Alaric destroyed the site. Eleusis was the victim of further attacks, but this time at the hands of Christians, and was deserted in the Byzantine era, remaining so until the 18th century. Modern Eleusis is an industrial city of cement, chemical, and steel factories. The bay is home to shipbuilding, oil tankers, ship repair docks, and a naval training academy. Pollution is heavy, the traffic unbearable, and many refineries and factories are in need of modernization.

Eleusis's fame rested on the Mysteries of Demeter and Persephone, the most renowned and important of Greek mystery cults. According to the ancients, the rites were established in the 15th century BC; however, there is no firm archaeological evidence for Late Bronze Age cult activity. It is clear, though, that the rites were known throughout Greece by the time of the *Homeric Hymn to Demeter* (650–550 BC), according to which the mysteries were established to celebrate the return of Persephone to her mother Demeter, the goddess of grain. According to the legend, Persephone was raped by Hades and carried off to his underworld realm. In her grief Demeter wandered the earth, searching for her daughter. She came to rest at Eleusis, where she befriended the king and promised to teach the Eleusinians her rites and mysteries. Demeter refused to allow crops to grow until Persephone was released, and so humankind was brought to the brink of starvation and sacrifices to the gods were in danger of ceasing. Hades yielded to the entreaties of Zeus and released Persephone who, however, since she had eaten food (a pomegranate seed) in the underworld, could not be fully restored to the upper world. Thus, although Persephone could spend eight months a year with her mother, she was compelled to spend the rest of the year in the underworld. This arrangement explains the growing cycle: during the reunion of mother and daughter, crops grow and lush vegetation spreads throughout the world, but on Persephone's return to Hades, the growing season comes to an end.

The *Homeric Hymn to Demeter* states that, after Persephone was first returned to her mother, Demeter revealed her mysteries to the leading citizens of Eleusis. Many of the sacred rites that form the essence of the Eleusinian Mysteries are not known, as disclosure of the rites was punishable by death; for a millennium and more that secrecy was preserved. (The great tragic poet Aeschylus, a native of Eleusis, was nearly lynched by an angry mob because the audience at one of his plays thought he had revealed some of the rites, while the famous Athenian general Alcibiades was condemned to death, in absentia, for conducting a parody of the mysteries.) What transpired in the mysteries may be reconstructed as follows. The cult was run by the city of Athens, although two families from Eleusis, the Eumolpidae and Ceryces, controlled the priesthood. Candidates for initiation (*mystai*) came to Athens in the early spring for the ritual called the Lesser Mysteries, the purpose of which was to prepare the candidates for initiation into the Greater Mysteries. Anyone who could speak Greek and was free of blood-guilt was eligible; the inclusion, in a Greek cult, of women, slaves, and Greek-speaking foreigners was remarkable. The *mystai* returned to Athens for the Greater Mysteries, a nine-day festival in the month of Boedromion (September/October). After six days of purification, washing, fasting, and sacrifices, a procession of priests and *mystai* left Athens for Eleusis via the Sacred Way. Stopping frequently for sacrifices, dancing, and singing, the procession arrived at night at the sanctuary. (A 35-m stretch of the Sacred Way has been unearthed near the 2nd-century AD bridge over the Cephisus river outside the city.) That night in the Hall of Mysteries the *mystai*, about 2000–3000 strong, were initiated into the mysteries and became *epoptai* ("those who have seen"). The ritual probably included a sacred meal, the revealing of the sacred objects of the cult, a re-enactment of the story of Demeter and Persephone, and dancing and sacrifices. Ancient sources relate that the *epoptai* were guaranteed a better life on earth and the promise of an afterlife. *Epoptai* could participate in the ritual as many times as they wished, and many did because of the intensely emotional spiritual experience. The personal communion with a deity, the promise of immortality, and the intensity of a shared bond with other worshippers made the mysteries a sharp contrast to state cults. The mysteries fulfilled spiritual yearnings in ways that mythology, legends, and official cults could not.

The archaeological remains at Eleusis are connected for the most part with the mysteries. The entire site is enclosed by magnificent fortifications from the Archaic to late Classical periods; the west wall, with its round and square towers, is perhaps the finest example of 4th-century BC fortification. The sacred precinct, lying on the south slope of the acropolis, was entered through two propylaeas: the Greater Propylaea, built by Marcus Aurelius in imitation of the Propylaea on the Athenian Acropolis, and the Lesser Propylaea, erected in the mid-1st century BC by the Roman aristocrat Appius Claudius Pulcher and his two nephews. Just inside the sanctuary, to the immethate right, is a cave with a small 4th-century BC temple dedicated to Hades; the cave was believed to be the entrance to the underworld. Just to the west is the Temple of Demeter or the Hall of Mysteries (Telesterion). A megaron from the Mycenaean age was built here, but it may not have had any cultic significance. The Telesterion had ten different building phases. In its final phase the hall was 56 m ¥ 66 m, with eight tiers of seats on each side. Forty-two columns supported the wooden roof. In the centre was the *anaktoron* ("Holy of Holies"), which contained the cult's sacred objects, and the high priest's chair. Except for the doors on three sides, the walls were solid, creating a dark, mysterious atmosphere. To the west of the Telesterion are remains of the council house, a 7th-century BC hero shrine, a Roman cult building dedicated to the sun god Mithras, and a gymnasium. On the acropolis are remains from the Bronze Age and the Hellenistic period. Immense Roman bath complexes have been found around the sacred precinct and in the modern town. To the south of the ancient site are a stadium and

theatre; these should be understood in connection with the Eleusinia, which were games held every fourth year (that is the third year of the four-year cycle of the Olympiad) and to a lesser extent two years later. For Athenians, the Eleusinia ranked behind only the Panathenaic games in prestige.

Eleusis may have lost its importance after its destruction in the 5th century AD, but the mysteries and the *Homeric Hymn to Demeter* continued to exert influence. The rape of Persephone proved popular in literature, and the legend and the Mysteries have attracted scholars in such fields as psychoanalysis, religion, feminism, gender studies, folklore, comparative mythology, and sociology. Moreover, the mysteries, with their promise of an afterlife and intense intense emotional transformative experience, tapped into the spiritual cravings of the ancient Greeks and Romans, and so paved the way for religions like Christianity and Mithraism.

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See also **Afterlife**

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EMIGRATION

Emigration is the act of moving from one country or region to another as a place of abode. The very making of Greece was the result of emigration of Greek-speaking tribes from the north into the Greek peninsula during the Bronze Age. In the centuries between the penetration and diffusion of the Greek-speaking tribes into the Greek peninsula and its conquest by the Romans, emigration was practised as an answer to various kinds of problems: war, famine, demographic pressure, poor standard of living. Emigration, constantly present in ancient Greek society, is a complex phenomenon addressing in different sociohistorical circumstances different needs. This article covers the great migratory movements of ancient Greek history.

The first extensive emigration took place between 1125 and 800 BC. There occurred three types of emigration during this period: (*a*) of Greeks who had previously settled in mountainous parts of the mainland and whose development lagged considerably in comparison to the tribes who participated in the Mycenaean civilization; once the decline of the Mycenaeans set in, these mountainous Greek tribes moved to the sites of the Mycenaean acme; (*b*) of refugees created by the first type of migratory movement; and (*c*) of early colonization of the east Aegean.

During the Archaic and Classical periods emigration was almost exclusively conducted by poor citizens of the city states. The majority of peasants owned small plots of land which were often insufficient for their sustenance. The situation was aggravated by inheritence rules, which prescribed the equal distribution of land among all male heirs, and which led to considerable land fragmentation. In addition, within the city states mechanisms of wealth transfer from the peasants to the city were also at play. In such a situation poor citizens often emigrated in search of a better life.

The character of emigration was profoundly changed in the time of Macedonian splendour. The annexation of territory in Egypt and Asia Minor by Alexander the Great gave rise to extensive emigration to these new lands. All through the 4th century BC large numbers of emigrants were drawn to the east in the hope of a career in the administration or the army, or even in the hope of acquiring land. As it was required of administrators and various officials to master the Greek language, the annexed territories offered great opportunities for career advancement to those Greeks who emigrated there.

In Byzantine times wars and the search for resources were the major causes of emigration. Invasions by enemy troops created a climate of instability in the countryside leading whole families to emigrate to areas or cities considered safe. Towards the end of the 6th century AD, when the northern borders of the empire collapsed, there was an emigration wave westwards to the Ionian islands and Italy. Although emigration was usually practised by the most needy members of the population, the economic pressures exercised on peasant households forced even wealthy peasants to emigrate. A different kind of emigration emerged just before the fall of the Byzantine empire. After the defeat of the crusaders at Nicopolis in 1396 many intellectuals fled west to Italy and north to the states of the Dunav. Here Greek emigrants formed sizeable communities which later played an important role in the formation and development of the Greek nation.

GABRIELLA-EVANGELIA ASPRAKI

See also **Urbanization**

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EMPEDOCLES *c.*492–432 BC

Philosopher

A native of Acragas (modern Agrigento) in Sicily, Empedocles was a leading philosopher of his time. He is difficult to classify because of the complexity of influences he manifests. He is at once a philosopher and a medicine man: while he constructs a rational cosmology, he also claims to have magical powers to raise the dead and change the weather. In his thought he both preserves Pythagorean religious teachings from the western Greeks and continues the scientific research of the eastern Greeks in Ionia. He accepts Parmenides' denial of coming to be, yet propounds a philosophy of natural change. Though a philosopher; he writes epic verse in a florid style; appealing to the authority of reason and argument, he also presents his theory as a revelation from the deities of Greek religion.

The most immediate philosophical influence on Empedocles is Parmenides. Empedocles adopts from him both the device of using epic conventions and diction to express his views, and some of his views as well, echoing Parmenides' own language. Most importantly, he accepts the principle that nothing can come to be from what is not. Furthermore, he agrees with Parmenides that the senses are suspect, though he ultimately accepts the testimony of the senses if they are used properly. But Parmenides seems to go on to use his principle that nothing comes from what is not to argue that there is no change at all, and that what our sense experience presents us with is no more than illusion. Empedocles, to the contrary, offers a positive account of how change is possible.

While there is no coming to be or perishing, strictly speaking, there are elements that can combine and separate to present the appearance of things coming into being and changing. The many substances of the world are on this theory mixtures of elements. Empedocles uses the simile of artists painting with a set of colours. By combining a few colours and drawing appropriate shapes with them, the painter may represent the infinite variety of things in the world. So nature produces the world with a few elements. Empedocles presents four elements, which he call "roots" (*rizomata*): earth, water, air, and fire, as combining in whole-number ratios to form compounds. For instance, bone consists of two parts earth, two parts water, four parts fire. The elements are acted upon by two forces, which he personifies as Love and Strife, or, roughly, attraction and repulsion.

The elements and forces take part in an elaborate cosmogony. At one time, in the present cosmos, the elements were separated out into concentric layers of earth, water, air, and fire, while Strife played an important role. But gradually Love comes to dominate in the world, combining the elements more and more until at last all the materials of the world are completely harmonized into a homogeneous sphere (*sphairos*) pervaded by Love. In the sphere there are no differences manifest, and hence no living things, no world as we know it. But at some point Strife attacks the sphere from the periphery and causes the elements to separate from one another, whereupon the cosmos begins to form. This alternation between the sphere and the cosmos forms a never-ending cycle of cosmic change.

Empedocles' theory of soul is deeply influenced by Pythagorean thought. The soul falls into a body as a result of the influence of Strife. It undergoes a cycle of reincarnations in plants, animals, and humans until it is purged and purified. The evils of mortality are compounded by the shedding of blood; Empedocles compares the eating of meat to cannibalistic consumption of one's relatives. Souls may progress to higher forms of plant and animal life and eventually to human life and its highest manifestations, from which they return to the status of gods. Empedocles announces that he "goes about as a mortal god, no longer mortal, honoured by all" (fr. 112. 4–5). He seems to be claiming to have achieved a state of purity that precludes further reincarnations, one that confers on him the magical powers to which he pretends. His philosophy thus forms part of a larger religious vision. Empedocles recognizes traditional gods, but calls them "long-lived" rather than "immortal", suggesting that they are beings subordinate to the cosmic cycle who will eventually be absorbed into the sphere. In his anthropology he looks back with longing to a primitive golden age in which humans and animals lived in harmony under the rule of Love, and worship was carried on without animal sacrifices.

Empedocles' views on nature, including specific discussions of biology, influenced Greek medical writers from the 5th century BC onwards, some of whom criticized him, but in doing so recognized his influence on medical studies. His great contribution to the scientific tradition was the theory of a finite set of elements forming an unlimited number of compounds by their combinations in whole-number ratios – a theory that has become the basis of modern chemistry. His specific set of four elements became standard by the following century and remained the basic substances of physical theory in both the Greek world and the west until the beginning of the modern era. Empedocles' religious ideas became part of the Neopythagorean and Neoplatonic traditions of later centuries.

DANIEL W. GRAHAM

Biography

Born *c.*492 BC at Acragas in Sicily, Empedocles came from an aristocratic family which had taken part in the Olympic Games. He himself seems to have been a doctor and to have been active in politics as well as in religious and philosophical circles. He was clearly influenced by Pythagoreanism as well as by the thought of Parmenides. He wrote two poems, one physical (*On Nature*), the other religious (*Purifications*), of which only fragments survive. He died in 432 BC.

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ENAMEL

Enamel is essentially coloured glass. When heated to its melting point, glass fuses with the metal with which it is in contact, and craftsmen have long exploited this property by decorating metal with boldly coloured opaque or jewel-like translucent enamel. It may well have been a Mycenaean invention: the earliest occurrence is thought to be on gold-relief beads from chamber tombs at Mycenae of *c.*1400 BC (Athens, National Archaeological Museum, Mycenae graves 88, 103). Blue enamel was fused into depressions in the repoussé-work, sometimes ringed by tiny spheres of gold.

The earliest cloisonné enamel to have survived is probably that on finger rings found in a tomb of the 12th century BC in Cyprus (Nicosia, Cyprus Museum, Kouklia Evreti grave 8/33). The design was created, and the different colours of glass separated, with strips of gold set on edge in glass disks, which were then mounted on the bezels of the rings. The fully developed cloisonné technique, in which the metal strips are attached to a metal backplate, is found on the bezel of a ring from a Minoan tomb of *c.*1425–1400 BC near Knossos (Herakleion, Archaeological Museum, Sellopoulo grave 3, J 6) and on the famous Kourion sceptre (Nicosia, Cyprus Museum, J 99); however, the vitreous material on the ring may not be enamel, and the sceptre may belong to a later culture.

There is little further evidence for the use of enamel in the Greek world before the 6th century BC, when filigree enamel – glass fused to the surface of an object inside loops of decorative wire – seems to have come into fashion, with blue and green the most common colours; it remained popular during the Classical and Hellenistic periods. Between the 3rd and the 1st centuries BC small pendants to be attached to jewellery were enamelled in the round, probably by being heated and dipped in molten glass, which was almost always white.

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See also **Glass; Jewellery**

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EPAMINONDAS

Theban statesman of the 4th century BC

Epaminondas, son of Polymnis, sprang from a venerable family, distinguished by birth but not by political accomplishments. His date of birth is unknown, but he received an excellent education in music and dance, rhetoric, and especially philosophy. During his early adult life he participated in the liberation of Thebes from Spartan occupation, but played no conspicuous

role in the years of subsequent fighting. Epaminondas came to the fore in 371 BC: when at a Panhellenic peace conference he defied the authority of Sparta and its king Agesilaus. When the Spartans invaded Boeotia later that year, he commanded the Theban army. At the Battle of Leuctra he crushed the enemy by a combination of brilliant tactics and superbly trained troops, destroying Sparta's ascendancy in Greece. In its place he established the Theban hegemony, which lasted until 362 BC, and made possible Theban predominance well into the Sacred War of 355–346 BC.

Anger over Spartan policies had long alienated many of the Peloponnesian states, and the victory at Leuctra released this pent-up animosity, Elis, Arcadia, and Argos allied with Thebes in 370 BC to oppose Sparta, and Agesilaus' ineffectual efforts to disrupt Arcadia provoked a military campaign by the new allies. Epaminondas and Pelopidas led the combined army on a massive invasion of Laconia. They assaulted Sparta unavailingly, but immediately turned their attention to ravaging unspoiled Laconia. Epaminondas next led them to Messenia, which they liberated from Sparta. The emancipated Messenian helots joined the allies, and together they encircled Sparta. Epaminondas directed the building of Messene, the capital of the new polis, in 369 BC. Next year he helped the Arcadians to build their new capital at Megalopolis.

On their return to Thebes, both Epaminondas and Pelopidas were tried by envious political opponents, but won easy acquittal. Reassembling the army, Epaminondas again in 369 BC penetrated the Peloponnese, but this time his target was Corinth and its surrounding allies. Although he devastated Corinthian territory and attacked the capital, his army were unable to do the well-fortified city any real harm. He was more successful in assailing neighbouring Sicyon, Epidaurus, Troezen, and Pellene. Though hardly spectacular, Epaminondas' gains deprived Sparta and Corinth of additional allies and denied them a portion of the northeastern Peloponnese.

Epaminondas' Peloponnesian policy had achieved remarkable results in a short time, but events in 368 BC proved that his work was inadequate. Athens had concluded an alliance with Sparta the previous year, but as yet was more of a nuisance than a threat. Of greater urgency was a serious dispute between Elis and Arcadia over the border territory of Triphylia. The two states were the warders of Sparta, and enmity between them threatened to undo all of Epaminondas' work. The quarrel also underlined a fundamental flaw in his system of alliances, from which he cannot be absolved. At the creation of the alliance, all members tacitly but actually acknowledged Theban hegemony. Yet this understanding was never formally endorsed. Nor was there any joint body or *synedrion* to resolve differences among the allies. In this diplomatic arena the Theban army was of little use, for armed intervention against any of the city states would disrupt the entire alliance. An additional fault was Epaminondas' failure to apply diplomatic pressure in order to obtain a peaceful solution to the problem. As a result, the quarrel split the alliance. Mutual and antagonistic ambitions did more damage to the united front than Sparta could ever have done. Thereafter, Epaminondas faced the relatively easy problem of Sparta and the far thornier matter of his allies.

Further diplomatic failure confronted Thebes in 366 BC, when Pelopidas won the approval of the Persian king for a new general peace, only to see its wholesale rejection in Greece. The affair ended in deep embarrassment. Epaminondas tried to recover Theban fortunes by another military expedition, this one aimed at Achaea, but the effort was pointless, because Achaea had hitherto neither supported Sparta nor opposed Thebes. Achaea fell easily, but unpopular Theban measures soon goaded a strong group of Achaeans to throw off its authority. Moreover, Achaea immediately joined Sparta, which additionally weakened the Theban position within the Peloponnese.

One of the oddest episodes of the Theban hegemony is Epaminondas' naval programme, which grew out of the Theban–Persian accord of 366 BC, and was aimed at Athens, despite the fact that Thebes had suffered virtually nothing at Athenian hands, and the project was of little strategic value to its ambitions. The Persian king subsidized the construction of 100 triremes and in 364 BC Epaminondas put to sea. At the end of the summer he returned to Boeotia without results – and nothing more is heard of his fleet.

The final crisis for both Epaminondas and Thebes stemmed from the breakdown of their system of Peloponnesian alliances. By 362 BC the Peloponnesians were at open war with one another, Theban leadership disregarded, and Spartan resurgence a distinct possibility. Realizing that Thebes had virtually lost control of the situation, Epaminondas intervened to re-establish its authority. He led an army of 25,000–30,000 men against a coalition of Sparta, Athens, Elis, and some Arcadians, numbering some 22,000 soldiers. Epaminondas encamped at Tegea, his enemies at Mantinea in the Arcadian plain. The Spartans were late to arrive, so he seized the opportunity to attack the unprotected city of Sparta, but was repulsed. He retraced his steps without hesitation, and with his cavalry made a surprise stab at Mantinea, which also failed. Pitched battle was now the only option. He confronted the enemy south of Mantinea; and, as at Leuctra, drew up his striking force on the left with his allies on the right. Opposite him were the Spartans under Agesilaus. Epaminondas' men charged and cut through the Spartan line easily, but at the height of the action Epaminondas fell, mortally wounded. This effectively ended the battle: Epaminondas died on the field, and with him died the Theban hegemony.

Epaminondas had raised Thebes to the height of its power, but he alone could not sustain its position. The Theban hegemony proves rather that no one state could bring political unity to Greece. None the less, Cicero considered Epaminondas first among the Greeks, and most Greeks considered him the architect of the hegemony. The western intellectual tradition has uniformly held him as the model of the noble, far-sighted, and virtuous philosopher-statesman. He was also the paradigm of the cultured gentleman and man of action. A modern statue of him still stands in Thebes.

JOHN BUCKLER

Biography

Epaminondas, whose date of birth is unknown, came from a noble Theban family and received a good education. In 371 BC he represented Thebes at a Panhellenic peace conference at Sparta and made his mark by defying Sparta's king Agesilaus. Re-elected a Boeotarch, he led the Thebans at the Battle of Leuctra which destroyed Spartan supremacy and established Theban hegemony. He was killed in the Battle of Mantinea in 362 BC and Theban hegemony of Greece died with him.

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EPHESUS

City in western Asia Minor

Ephesus, which became the greatest city of Asia Minor, was a centre of Hellenism for over 2,000 years. According to tradition it was founded by Androclus, son of the king of Athens, in the 10th century BC. He chose a defensible site on a gulf near the mouth of the Cayster river. Ephesus thrived as an independent city through the Archaic period, becoming a centre of the Ionian renaissance. It adopted the worship of a local goddess identified with Artemis, whose images and priests, however, retained distinct local characteristics. Her first temple was destroyed by the Cimmerians in the 7th century BC.

Croesus of Lydia conquered the city in 560 BC, and moved its inhabitants to a new site near the new temple of Artemis, which he adorned with elaborate columns. Despite its incorporation into the Persian empire in 547 BC, the city retained considerable autonomy and flourished as a centre of Greek culture. Its most famous sons were the philosopher Heraclitus and the satiric poet Hipponax.

Ephesus supported the Ionian revolt of 499 BC, and in 478, now independent, joined the Delian league, where its high tribute marked it as one of the richest members. The Persians took it again in 387 BC, and held it until its capture by Alexander the Great in 334. Alexander made generous gifts to the temple of Artemis which had been burned in 356 BC, on the night when he was born. The new temple, built on an even grander scale, was soon recognized as one of the seven wonders of the ancient world. It functioned as a financial centre, and had the right of asylum.

Because of silting of the harbour, Lysimachus, who controlled the region from 287 to 281 BC, moved the city to a new site, where it flourished until the Middle Ages. The new Ephesus had a rectangular street pattern, with a great theatre and agora in the centre. The major remains of his work are the massive fortifications, 10 km long. Ephesus was subsequently ruled by the Seleucids and Pergamum until it became Roman in 133 BC. Despite joining Mithridates in 88 BC, the city remained a major centre, receiving the visits of Cicero and Mark Antony, who made a dramatic entrance in the guise of Dionysus.

Ephesus reached its height under the Roman empire, when it was the residence of the proconsul of Asia (the most famous was the future emperor Antoninus Pius), and seat of the imperial cult. Surviving remains illustrate the growth that made it one of the three largest cities of the eastern half of the empire. They include four huge gymnasia, the theatre, stadium, agora, library, civic centre, temples, lavish houses, and streets paved with marble and lined with colonnades. The greatest monument was still the temple of Artemis, on the ancient site. Building activity was most intense in the 2nd century AD.

By that time, Ephesus had become a centre of Christianity and home of sonic of its most sacred sites. St Paul visited in a famous and well-documented scene (Acts 19). An ancient tradition had St John and St Timothy buried here and a legend associated the last years of the Virgin Mary with the city.

Although a Gothic attack in AD 262 destroyed much of the centre, late antiquity brought revival and continuing prosperity. The Roman city was maintained but transformed. Temples were destroyed and used as quarries, churches were added to the urban fabric, and bazaars grew up along the colonnaded streets. Mosaics and wall paintings produced a colourful impression. Ephesus took on a distinctly Christian appearance, most notably in two great churches. St Mary's, built into the ruins of the precinct of Hadrian's temple, was the seat of two church councils, the Third Ecumenical Council of 430 which established the adoration of the Virgin, and the so-called Robber Council of 449, not recognized by the Orthodox Church. These meetings brought an influx of visitors and widespread public disturbance as the various doctrines were debated and fought over. The church of St John, built over the apostle's tomb on the hill above the temple of Artemis, was rebuilt in the 6th century on a grandiose scale by Justinian I. It soon became the seat of the metropolitan bishop, and the goal of pilgrims from every part of the empire. The 5th century had added another holy site, the tomb of the Seven Sleepers, youths who had survived persecution by miraculously sleeping for 200 years. This, too, became a goal of pilgrimage.

Large parts of the city were destroyed in the early 7th century, probably by the Persians. They were followed by the Arabs, who occupied it in 654. Ephesus never recovered. The medieval city was confined to a small part of the ancient centre, surrounded by new walls built from the remains of earlier buildings. Although this site had remained an important port and seat of a large regional fair, silting of the harbour caused the centre to shift to the heavily fortified community around the church of St John by the 11th century. Consequently, medieval Ephesus is usually called Theologos, a title of the saint. Pilgrims continued to visit the apostle's tomb through the Byzantine period, especially to collect the sacred dust, or manna, that issued from the tomb and supposedly had miraculous powers.

Byzantine (and Hellenic) Ephesus flourished for the last time under the Laskarids (1204–61) when it was an important centre of education and home of the greatest scholars of the time. The Turkish conquest of 1304 introduced a period of renewed prosperity, the greatest since the 6th century, but Ephesus was now a Turkish city. The Greek population rapidly disappeared or was converted, and the church of St John became a mosque. It was finally destroyed in civil wars in the early 15th century. In the Ottoman period, only a few Greek Christians remained in a declining town that suffered from malaria and nomadism. The arrival of the English archaeologist John Wood in 1863 introduced a period of revival. His discovery of the temple of Artemis was the prelude to the extensive excavations that the Austrians have been carrying out successfully since 1895, revealing the ancient city.

CLIVE FOSS

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EPHORUS

Historian of the 4th century BC

Ephorus was a major historian of the 4th century BC who came from Cyme in Aeolis (Asia Minor). The tradition is unanimous that he studied at Athens under Isocrates, and in fact the surviving fragments and that part of the text of Diodorus Siculus that is based on Ephorus (Ephorus' own works are all lost) preserve an unmistakable Isocratean flavour. Equally in evidence is a strong admiration for Athens. Apart from his main work, the *Histories*, we hear, *inter alia*, of a local history of Cyme, a book on literary style, and one on discoveries.

The *Histories* were a general, or universal, history from the Dorian invasion up to Ephorus' own day that, while concentrating on the Greeks, tried also to include the actions and achievements of non-Greek people, to the extent at least that these impinged on Greece. In this respect he was following in the footsteps of Herodotus rather than Thucydides; and not only in this, but also in his broader interpretation of history and its scope. For instance, two whole books were devoted to geography, and in the early books necessarily, but in the later historical books as well, whenever appropriate, he related much that was known in the 4th century BC about Greek colonization and the foundation of cities (reputedly an Ephoran speciality), ethnology, religion, culture in general, and science. According to Polybius, Ephorus was the only historian (apart from himself of course) to have attempted a universal history. Herodotus had been inspired to write what he did by the titanic clash between east and west, Europe and Asia, Greeks and barbarians (led by Persia), which culminated in the crossing of Xerxes from Asia to Europe in 480 BC where he met with defeat and disgrace. The unification of Greece under Philip of Macedon and the reverse crossing of Alexander the Great from Europe to Asia in 334 BC, which resulted in the conquest of the Persian empire, a stupendous event, would appear to have provided Ephorus with his main theme: he had intended to cover the period of Greek (and related barbarian) history from the return of the Heraclidae (the Macedonian royal house claimed descent from Heracles) in the 11th century BC to 334 BC, but he was forced (by old age or illness) to stop with the year 341/40 BC, having written 29 books. A 30th book was added by his son Demophilus, which still did not complete Ephorus' original purpose.

Ephorus was above all a didactic historian. In line with most contemporary historiography he wrote primarily for the purpose of instructing. The moral appraisements of public men (praising the good and censuring the bad) that we find in books 11 and 15 of Diodorus Siculus had their origin in Ephorus, who in turn applied to historical writing Isocratean theory on the subject. Rhetoric and a fine style, whether in writing or in speaking, were not ends in themselves for Isocrates, but merely tools to be employed, along with anything else that could be so utilized, for the attainment of correct, virtuous conduct, above all by political leaders. Writing at a time when Greece had succumbed to Macedon, Ephorus, naturally enough, sought to explain the collapse of the leading states of Greece and the rise of Macedon: ethical and pious conduct, whether by individuals or by states, in private no less than in public life, was Ephorus' (and Isocrates') recipe for success, one entirely in keeping with conventional Greek morality, For Ephorus, therefore, the failure of Greece was essentially a moral matter, as was also Philip's corresponding success.

Conventional in his outlook, as a historiographer Ephorus was nevertheless highly innovative and influential. He appears to have been the first writer to divide his work into books, providing each with its own preface. Within books events were narrated, in so far as it was possible, from beginning to end without interruption, and they were grouped together so as to form a thematic unity. There can be little doubt that this was a conscious attempt to improve on the annalistic presentation of Thucydides and the Oxyrhynchus historian, both of whom Ephorus employed as sources. The belief, almost universally held by scholars, that, always and as a matter of principle, each book was devoted exclusively to the history of one of the four major regions with which the *Histories* were concerned, that is, mainland Greece, the west, the east (Persia), and (after 360 BC) the north (Macedonia), can be shown from the fragments and the text of Diodorus Siculus to be wrong. Ephorus' method was not inflexible. Events from different regions were often related in close sequence in the same books, with any connections between them highlighted.

Often uncritical in the use of his sources, prone to exaggeration (for example, he habitually inflated figures for barbarian forces, even when he knew better), and to smoothing over difficulties, Ephorus falls short of the high standards of the greatest of the Greek historians. Even so, his achievement in composing for the first time a general and systematic history of the Mediterranean world was considerable, and the *Histories* remained canonical reading for as long as the ancient world was able to handle works on such a scale. Its popularity is indicated by the extent to which it was used and imitated by other writers. Diyllus, the Athenian historian, made the year 340 BC (where Ephorus broke off) the starting-point of his own general, Greek and barbarian, history. Strabo, the eminent geographer, made extensive use of Ephorus, quoting him on numerous occasions; and of course much of the surviving work of Diodorus Siculus is in essence Ephorus, abridged and paraphrased. We would have a much poorer understanding of the 4th century but for Ephorus, as he has come down to us in Diodorus.

P.J. STYLIANOU

Biography

Born c.400 BC at Cyme in Aeolis in Asia Minor, Ephorus seems to have been a pupil of Isocrates at Athens. His principal work was the Histories in 30 books, a universal history from the Dorian invasion to his own day (the last book was written by his son).

He also wrote a local history of Cyme, a book on style, and a book on discoveries. All his works are lost, but the Histories was an important source for other historians, notably Diodorus Siculus. He died in the 320s BC.

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EPICURUS 341–270 BC

Philosopher

Though an Athenian by citizenship, Epicurus was born and brought up in Samos, after his father Neocles emigrated to the Athenian cleruchy there. He was educated in Athens by the Platonist Pamphilus and the Democritean Nausiphanes. After a period teaching philosophy in Mytilene and Lampsacus he returned to Athens (307/06 BC) and bought a house with a garden (on a site between the Dipylon Gate and Plato's Academy) where he set up his own philosophical school (sometimes referred to simply as "the garden"). He created scandal by including both slaves and women in the community of followers who gathered around him.

Philosophically, Epicurus was a hedonist, in that he believed that pleasure was the goal of all activity, but his conception of pleasure was a very austere one. The supreme pleasure, he claimed, could be enjoyed only in the absence of all pain (and indeed in some sense pleasure consisted of the removal of pain, as in drinking when we are thirsty, or eating when we are hungry). Since an unfulfilled desire is a pain, then the happy life can be achieved only if we restrict our desires to those that are related to natural, satiable, appetites (e.g. for food or drink), and remove those that spring from unnatural appetites (for gourmet meals, for example, or wealth, fame, and power); such desires, being unnatural, have no natural limit, and so can never be satisfied. He recommended, then, a simple life of unambitious obscurity. To the objection that uncontrolled pain in this life, and punishment by the gods in the life to come, might overbalance any pleasure we may achieve, he responded that death was our guarantee that no pain could become so great as to overcome pleasure entirely; death limits the amount of pain we can suffer, because it is the end of all sensation: "Death is nothing to us, for when we are death is not, and when death is we are not." So far as the gods are concerned, they would not be able to live lives of perfect pleasure if they bothered themselves with the running of the world, and so, he argues, like perfect Epicureans they enjoy an existence of eternally undisturbed blessedness, taking no interest in us or our activities. He supported these positions by adopting a modified form of the atomism of Democritus, which enabled him to explain the creation and existence of the world in purely mechanical terms, as the result of random collisions of atoms, without having to bring in a divine creator. Since the human soul also consisted of atoms, which dispersed at death, there could be no afterlife, and death need no longer be feared. His principal modification of Democritus' system was the introduction of an uncaused swerve that some atoms made at random times; this seems to have been Epicurus' attempt to escape the risk that Democritus' purely mechanistic universe would rule out human free will, but the fragmentary nature of the evidence makes it difficult to be certain how he thought of this as working. He went on to develop a sophisticated theory of perception (sight, for example, being caused by thin films of atoms that are constantly being cast off by physical objects, and which are brought into contact with our soul-atoms through our eyes), and on the basis of this a theory of knowledge that rested on the absolute reliability of all sense perception (but not of our interpretation of it).

Though Epicurus was reputedly a prolific writer, very few of his works survive. Diogenes Laertius' *Lives of the Philosophers* preserves three "letters" (really short essays) on ethics, astronomy, and physics, together with a collection of 40 sayings, the *Principal Doctrines*. Another similar collection is preserved in a manuscript found in the Vatican in the 19th century. In addition, in the 18th century, scrolls of his major work, *On Nature*, were discovered preserved by volcanic ash in the Villa of the Papyri at Herculaneum; attempts to unroll and read them have been successful only recently. Otherwise we are dependent on an account in verse of his physics written by the Roman poet Lucretius, and summaries of his doctrines by writers such as Cicero and Plutarch, given from the point of view of his philosophical opponents.

Unlike many ancient philosophical schools, the Epicureans were enthusiastic proselytizers, and made an effort, with popularizing accounts of their doctrines, to make a wide appeal, and their success attracted the hostility and contempt of the followers of more conservative schools. A striking example of the degree of enthusiasm that the school could arouse in its followers is shown by a massive inscription (covering a wall about 80 m long) put up in the Lycian city of Oenoanda in the 2nd century AD by the Epicurean Diogenes for the edification of his fellow citizens, and containing among other things treatises on ethics and physics, and a collection of maxims. There is no evidence that the school survived into the 3rd century AD.

Though Epicureanism, with its emphasis on community and moderation, its enthusiasm for proselytizing, and its hostility to conventional religion and superstition, might be thought to have many points of resemblance to Christianity, Christian writers treat it on the whole unsympathetically. Although some Epicurean teachings (that the soul is a physical thing, for example, and that the world had a beginning and an end) gave welcome support to the Christian position in controversies with other philosophical schools, so that in these contexts Epicurean views could be cited with approval, Christians in general were unsympathetic to Epicureans. Their denial of a life after death,

their belief that the gods did not concern themselves with what happens in the world, and their elevation of pleasure as the ultimate goal of all activity made them the representatives of all that was wrong with non-Christian thought. A very few Christian writers saw their virtues (Gregory of Nazianzus, for example, praises Epicurus for his moderation), but in general they do no more than repeat anti-Epicurean polemic picked up from the writings of rival philosophers, and played a great part in perpetuating the caricature of Epicureans as vulgar hedonists.

RICHARD WALLACE

Biography

Born in Samos in 341 BC, Epicurus was educated in Athens where he was a pupil of the Platonist Pamphilus and the atomist Nausiphanes. In 309 he began teaching and opened schools in Mytilene and Lampsacus. In 307/06 he returned to Athens and opened a school called "the garden" which continued to teach Epicureanism until the 2nd century AD. Apart from some surviving fragments his writings are best known through the *De Rerum Natura* of Lucretius. He died at Athens in 270 BC.

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EPIDAURUS

City in the eastern Peloponnese

Epidaurus is a typical small Greek city, hardly bigger than an English village, situated on the coast at the south side of the Saronic gulf. It is important for one reason only, the existence in its southern hinterland of the remains of the ancient sanctuary of Asclepius the healing god, the most significant of his sanctuaries in mainland Greece.

Asclepius was something of a parvenu among the Greek gods. According to his mythology, he was the son of Apollo and a mortal woman Coronis; originally a mortal, he was only subsequently deified. There is no real trace of his cult in the early Greek tradition, and his sanctuary at Epidaurus was grafted on to an existing sanctuary of Apollo. At first it was completely nondescript, an altar and a small adjacent building. Apollo himself had little more, and the whole is typical of the modest sanctuaries that were sufficient for and all that could be afforded by the less wealthy Greek communities. It is thus possible to trace its deliberate conversion, the reason and means whereby this was achieved, into one of the major sanctuaries of Greece.

The cause seems to have been the great plague which struck Athens during the early years of the Peloponnesian War, when the rural population was evacuated into the area defended by the walls that linked Athens to Piraeus, in squalid conditions with no sanitation. At this time, the last third of the 5th century BC, Greek medicine was developing along scientific – certainly pragmatic – lines. It is the time of Hippocrates the "father" of Greek medicine. But parallel to this was a firm belief, certainly among the mass of the population, in miracle cures brought about by the intervention of a deity. Asclepius, through his father, was the appropriate focus for such beliefs, and duly acquired divine status. Since conventional doctors had no cure for the plague, anyone who recovered, or any community which escaped, could only credit this to the intervention of the god, and the reputation of Asclepius was thereby greatly increased. A small sanctuary (again, grafted on to one of Apollo) was established in 416 BC on the south slopes of the Acropolis at Athens; but it was Epidaurus (which seems to have escaped the spread of the plague) that benefited the most.

The sanctuary was supposedly at the place, or, rather, one of the places, where it was believed that Asclepius was born. During the 4th century BC the amount of patronage attracted to the sanctuary, and, by implication, the amount of revenue it raised for the cult, enabled a substantial building programme to be carried out. The contracts for the various necessary building projects were recorded by inscriptions on stone. Many of these have survived, and record the progress of the sanctuary's development, and the means by which this was achieved. The work was under the control of an official board of commissioners, who were entrusted with, or more likely actively collected, the necessary funds. They appointed roving ambassadors who visited cities up and down the Greek world asking for financial support. They let the contracts, to quarrymen, to transporters, and to craftsmen. They appointed the architect. They also appointed guarantors, wealthy citizens of Epidaurus, who would be liable to financial penalties if the work was not carried out to the satisfaction of the commissioners. These inscriptions record the cost of materials and their transport, the wages of the craftsmen, and the salary paid to the architect (he got double the rate of an ordinary workman, which suggests that his pay was regarded basically as expenses only). It is possible to calculate, when the inscriptions are well enough preserved, the actual cost of the buildings, and these make clear that figures given in later literary sources for other building projects, particularly those on the Acropolis of Athens, are grossly exaggerated.

The first essential in the building programme was the Doric temple of Asclepius, in limestone, brought mostly from Corinth, and with Pentelic marble for the sculptural decoration. In front of this was the altar, and to the north a long enclosed building, the Abaton, which was the place of healing: in this the patients slept, and during the night were supposedly visited and healed by the god. Next came the most ornate structure, a circular Doric building called the Thymele. It once had important painted wall decoration, described by Pausanias but now irretrievably lost. The circular cella had a decorative interior colonnade of Corinthian columns. (There were probably Corinthian columns also in the temple but these have totally vanished.) It all rested on a maze of circular foundations, each

ring accessible to the next through doorways. Its purpose is enigmatic, but it is probably best interpreted as a cenotaph, representing the burial place of the human Asclepius before he was deified. The inscriptions for this building cover a period of over 30 years, in the second half of the 4th century BC, a time when, it is clear, funds were coming in erratically. Another important building of this period is the great theatre, the best preserved in mainland Greece, attributed by Pausanias, together with the Thymele, to Polyclitus, who he seems to have thought was the famous Argive sculptor. But the dates are wrong, and unless this is a total mistake, the architect was probably a descendant of the sculptor.

Construction work continued well into the 3rd century BC, buildings often being paid for by single donors. They include a large courtyard building, with an elaborate ramped entrance for processions, and surrounded by rooms equipped for ritual feasting in the Greek manner, the participants in the sacred meals reclining on simple couches. There is a propylon, or gateway building, not an effective barrier, since it can be bypassed to either side. Its function is to mark the entry into the sanctuary; there was a rule that all the sacrificial meat had to be consumed within the boundary. There was quite elaborate provision for water supplies; the abundance of water, still a feature of the site, is undoubtedly the reason the sanctuary developed at this particular spot. There is a stadium for athletic contests. There are also temples and altars to other deities, to Apollo's sister Artemis, and to other gods whose identity is not recorded.

The sanctuary flourished throughout the Hellenistic period, when many of the cures effected were recorded on inscriptions ("publication promised"). It was ransacked in the disturbed times of the 1st century BC, but revived and flourished again under the Romans, when buildings were repaired and a bath building added. The last recorded cures date to the 4th century AD, but the whole cult, its beliefs and practices, had such close parallels to Christianity (which was certainly influenced by this and similar cults) that it was regarded as a blasphemy, and ceased to function. The buildings fell into ruin, except for the theatre the seats of which were covered by earth slips. In the late 19th century the theatre was excavated and now plays an important role in the continuity of the Hellenic tradition, as a venue for the modern production of classical Athenian drama.

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EPIGRAM

Originally an epigram (from the verb *epigrapho* – "I write upon") was an inscription on an object or a monument. Its original application determined the characteristic features of what was to become a literary genre; it was brief and in verse, while its content was usually dedicatory or funereal. The literary genre of the epigram in its non-inscriptional form was developed and cultivated intensively in the Hellenistic and imperial periods. The epigram is perhaps the sole ancient literary genre that has been practised unremittingly down to modern times. Although the genre underwent considerable changes in the Byzantine period, the basic characteristics remained the same, while its original association with inscriptions was not entirely lost.

Archaic epigrams are inscriptions. The earliest known (8th century BC) are in hexameters but very soon the predominant metre became the elegiac couplet which was to become the classic metre of the epigram. The epigrams of the Archaic period are mostly epitaphs or inscriptions on an object, and they consist largely of formulas.

Many inscriptional epigrams from the Classical period are anonymous. The first known epigrammatist was Simonides of Ceos (557/56–468 BC) who wrote funeral epigrams on the fallen in the Persian Wars. Yet only a few of the epigrams attributed to him are certainly his. Some renowned figures such as Aeschylus, Euripides, Plato, and Aristotle also composed epigrams which now became increasingly elaborate in form and content. Their aim is often to edify, but human feelings are also given expression.

The beginning of the Hellenistic age marks a turning point in the history of the epigram. Two important changes raised it into a literary genre: it became less factual as it gradually lost its association with actual events and objects, and thus served no practical function; and it was published mainly in book form. The epigram now became a vehicle for the expression of personal feelings, assuming the role traditionally played by lyric and sympotic poetry. Allusiveness, conciseness, density of expression, wit, and a constant search for variation now became characteristics of the genre. Two schools of early epigrammatists may be distinguished: the Dorian-Peloponnesian and the Ionian-Alexandrian. In the first the leading figure was Leonidas of Tarentum, as well as the female poets Anyte, Nossis, and Moiro. They show a preference for the traditional inscriptional epigram, i.e. dedicatory and funereal. The ordinary and idyllic replace the heroic aspect, but the style is often ornate or even pompous. Callimachus, Poseidippus, and Asclepiades are eminent figures of the Ionian-Alexandrian school. Witty language and the art of allusion are skilfully used to describe the pleasures of life, wine, love, song, women, boys. In the 1st century BC the epigram blossomed with Antipater of Sidon and Meleager of Gadara (Phoenician school). The latter compiled the first anthology of epigrams known as "Garland" (*Stephanos*). It became a characteristic of the literary epigram to appear in anthologies. The most important were the *Garland* of Philip (*c.*AD 40), the *Cycle* of Agathias (6th century AD), and later the *Palatine Anthology* (*c.*980) and the *Planudean Anthology* (1301).

The epigram flourished in the imperial age and was taken over by Roman poets. There is a noticeable change not only in the themes of epigrams but also in their tone. Ecphrastic and epideictic epigrams for various occasions – epigrams on events of everyday life, to accompany gifts, to console or to congratulate, to thank or invite now predominate – and satirical epigrams also became very fashionable. Many Greek

epigrammatists, such as Philodemus, Crinagoras, and Antipater of Thessalonica, frequented Roman high society. In the 2nd century AD the epigram went through a classicizing phase; and the erotic epigram was revived with Rufinus and Strato, who wrote pederastic ones.

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See also **Anthology**

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EPIRUS

Region in northwest Greece

Epeiros means "mainland" in ancient Greek. At first sight this seems rather a vague term, but the western coast of Epirus is the mainland opposite the northern Ionian islands of Corfu and its outliers. The eastern border is formed by the central Pindus massif running like a spine through northern Greece. To the north, the central Albanian plain beginning near Vlorë marks the end of Epirus, basically a mountainous region, while to the south the Gulf of Arta and the comparatively low-lying areas of Aetolia and Acarnania form a similar barrier. Three parallel high limestone ridges running from north to south dominate the landscape and make the area curiously enclosed, since invaders coming from the north can climb up the valleys of the Aoos (Vijosë) river and its tributaries, but eventually these lead nowhere. The alluvial valleys are quite fertile, but flooding is always a danger. There are few natural harbours, and these are liable to silting. Rainfall by Greek standards is plentiful, although winters are harsh, and melting snows cause deforestation.

The *Odyssey* refers to Epirus as the mainland and to the possibility that Odysseus may have sheltered in Thesprotia, the area opposite Corfu which is still known by this name. Homer in the same poem talks of the oracle of Dodona, second only to Delphi in fame and to none in antiquity, situated in the mountains of eastern Epirus. Herodotus mentions Epirus as the home of the ancient Dorians and refers to the oracle at the mouth of the river Acheron in southern Epirus. The Persian and Peloponnesian Wars do not seem to have impinged much on Epirus, although the Persian invasion to the east, the conflict between Corcyra (modern Corfu) and Epidamnus to the west, and the campaigns of Demosthenes in Aetolia to the south must have made some mark.

In the 4th century BC the Greek world widened. Philip of Macedon was married to the sister of Alexander, a powerful king of the Molossians, who seems to have established hegemony over the rest of Epirus. He and his more famous cousin Pyrrhus tried to expand westwards in the same way that Alexander the Great had expanded the power of Macedon to the east, but both perished in the attempt. Nevertheless, the 3rd and 2nd centuries were prosperous times for Epirus in which powerful cities like Antigoneia and Amantia were built. Modern Albanian historians tend to see these as Illyrian foundations, but 4th-century inscriptions show the tribes of Epirus, including the Molossians, writing in Greek. The Molossian monarchy fell in 232 BC and was replaced by a federal republic with an assembly at Phoenice (modern Finiq) in the Greek-speaking part of southern Albania. In Rome's war against Macedon, Epirus changed sides and was punished for its faithlessness by the Roman sack of many Epirote towns and the ensalvement of 150,000 captives in 168 BC.

Not surprisingly, Epirus fell into decline under Roman rule. Cicero's friend Atticus had rich estates at Buthrotum (modern Butrint) and Latin settlers and traders may have brought some prosperity to the coast near Italy, although both branches of the Via Egnatia passed further north. Augustus founded Nicopolis near Preveza and Hadrian Hadrianopolis near Gjirokastër. Rome foundations in Greek lands soon lost their Latin speech,

but the influence of Latin should not be discounted as a factor in west Balkan ethnology, as it would help explain both the presence of large numbers of Vlachs in Albanian and Greek Epirus and the survival of Albanian, not giving way to Greek or Latin because neither was the dominant lingua franca.

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EPISTOLOGRAPHY

Epistolography (from Greek *epistole* "letter" and *graphia* "writing") is letter writing. The term is used for a literary genre in which works are written in the form of letters. Such letters are known as literary letters – as distinguished from private and official letters – if they were either primarily destined for publication by their author or if they were published posthumously for the sake of their contents and what they reveal about the personality of the author (or of the addressee). A sharp line, however, cannot be drawn between literary and private letters. Private letters published afterwards should be assigned to epistolography if they are autobiographical and contemporary documents. In this case they are called literary private letters.

In Classical times folding wooden boards were used for correspondence. They were covered inside with wax to be written on and were used for answering letters after the initial message had been erased. Papyrus was also used – demonstrated by the large number of private letters written on papyrus – and, later on, parchment and paper. Since there was no public mail service, letters were sent by messengers who had to be privately hired in each case; another possibility was to send letters with travellers.

Letter writing is not a Greek invention: in the 2nd millennium BC the Egyptians were already collecting correspondence. A theory of letter writing was gradually developed by the Greeks during the Classical period around the 5th century BC, at a time when the contents and functions of literary forms were the subject of analysis. Moreover, the art of rhetoric became increasingly important. Since epistolography was regarded as an aspect of rhetoric, basic rules and principles for writing letters were developed. Some of the thoughts and general considerations about style of one of the oldest theoreticians, Artemon of Cassandreia (1st century AD), were indirectly passed on to us through statements of a late Hellenistic author, pseudo-Demetrius (*c.*1st century AD). In the 2nd century AD a certain Philostratus established a system of rules that classified the most important items for a cultivated and refined style. Here readers learn that a letter should be an image of the writer's soul. Letters are considered to be identical in character to conversation, hence great value is attached to forms of salutation and direct address in the text. The style should be distinguished by brevity and clarity; the language should be elevated but understandable. All this can be achieved by a moderate use of Atticisms and by avoiding rarely used words. Rhetorical ornamentation is allowed in principle but should be used with moderation. Metaphors, for instance, should be avoided, but the insertion of narratives and myths, literary allusions, quotations, and proverbs is encouraged.

In later centuries these theoretical principles were taken up and described repeatedly, but observed less and less in practice. Practical examples accompanied theoretical considerations. Pseudo-Demetrius, for instance, gives a survey of different letter forms (he mentions 21), quoting a sample letter for each type. In the Renaissance this author was still in demand in the Latin west, as revealed by occasional references to him by the famous humanist Erasmus of Rotterdam in his guide to letter writing.

Literary letters appear in various forms, and theoreticians who have tried to classify them strongly disagree over their number. Both the didactic epistle, which is often used in philosophical discussions, and the dedicatory epistle, used as a preface to literary works addressed to a specific person, are found, for example. Faked letters, which first became popular during the Hellenistic period and which were sometimes compiled as epistolary novels, were used for rhetorical exercises. In addition, there are private letters concerning friendship, comfort, requests, thanks, recommendation, praise, and reproach.

When writing a letter, certain conventions had to be observed. Letters usually consisted of three parts: the introduction or *praescriptum*, the actual text, and the final clause. The *praescriptum* originally contained only the salutation of the addressee, according to the scheme "A greets B", but this could be extended to a greater demonstration of friendship in the introductory and final parts, especially if the addressee's health became the main topic.

More or less private collections of correspondence are known for almost all famous people (though many only through references in other works), beginning with the Classical authors. In the Hellenistic period the writing of letters increased and gradually gained in importance over the following centuries. The extensive correspondence of the rhetorician Libanius (4th century AD) contains more than 1500 letters written to or by Libanius, some of them addressed to famous contemporaries. It is important to note that collections of private letters not only contain letters received by the respective addressee, but also letters written by him. When a letter was composed it was usual – especially with regard to later publication of the correspondence – to make a duplicate and retain it in a private archive. Before publication letters were sometimes subjected to a second rhetorical and stylistic revision. A letter was not only an instrument of communication, but a real literary product. A letter that was carefully drafted according to the rules of

rhetoric was, naturally enough, enthusiastically received by the addressee. Many inspired passages were almost literally reproduced in subsequent letters of the recipient's own; this was not regarded as reprehensible but, on the contrary, as desirable. It was called *mimesis*, imitation. Moreover, it was customary to read elaborate letters aloud to interested circles in order to enjoy collectively a writer's language and expression.

Epistolography was also influenced by Christianization. The epistles of the apostle Paul to early Christian communities, for instance, had a partially didactic, partially encouraging purpose; they stand at the beginning of the tradition of the pastoral epistles and encyclica of the Christian Church. The letter was also an important instrument for the Fathers of the Church in the discussion of dogmatic, exegetical, and philosophical problems. Christian influence is evidenced by stereotyped phrases, modesty demanding that the sender – independent of his social position – assume an attitude of humility and place himself on a lower level in relation to the addressee. The form of salutation here is: "it is B that A greets" or "B is greeted by A".

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ERASISTRATUS *c.*315–*c.*240 BC

Physician

Erasistratus is known as the father of physiology. Born into a medical family in Iulis on the island of Ceos, educated in Athens in the peripatetic philosophy of Aristotle and Theophrastus, he later learned medicine on the island of Cos. Aristotle's son-in-law Metrodorus taught him medicine. Around 293 BC he was a court physician to Seleucus I Nicator and worked mostly in Antioch in medical practice. By tradition, he became a member of the Museum in Alexandria. Later writers, such as Celsus, associated Erasistratus and Herophilus as colleagues in research in the Museum, but some modern scholars are sceptical that Erasistratus was actually in residence in Alexandria. More likely he conducted his anatomical research there, since it is doubtful that dissections could have been conducted elsewhere.

The leisurely research environment of the Museum and his previous philosophical and medical practice enabled Erasistratus to examine the physiology of the body in a comprehensive system. He provided original and important observations on the functions of blood, air, digestion, and nerves that were probably explained in his work *Oi Katholou Logoi* (*General Principles*). None of Erasistratus' works is extant, but, because later authors, especially Galen, referred to him extensively, his ideas are preserved. Although Erasistratus influenced physiology, medicine, and, to some degree, philosophy, his major influence was confined to specific contributions.

Erasistratus' system combined a mechanistic system of bodily functions influenced by his Stoic teacher, Chrysippus, and by his anatomist colleague at Alexandria, Herophilus. Also influential on his thinking were the peripatetic teleology of causation and an abiding commitment to empirical verification, perhaps derived from Strato. Dissection of human cadavers was conducted at the Museum. The Roman medical writer Celsus (early 1st century AD), attributed vivisection of condemned criminals to both Herophilus and Erasistratus. Later Christian writers (Tertullian and Augustine among them) repeated the accusation. Many modern scholars are sceptical because Galen, who employed Erasistratus' works extensively, made no mention of the practice, but he described Erasistratus' vivisection experiments with animals. However, Erasistratus himself did say that the examination of dead bodies can be deceptive in terms of what we may learn about the functions of live bodies.

Erasistratus wrote on abdominal pathology. Gargilius Martialis (*fl.* 3rd century AD) referred to Alexandrian deep autopsies for the cause of death. In particular he spoke of an examination of death by lice-induced typhus where death was detected by changes in cardiac tissue. Whereas Gargilius did not specifically name Erasistratus, he is the only one at Alexandria whose name is associated with autopsy.

Erasistratus' assertion that the heart was central to both the venal and the arterial systems has led some modern scholars to claim that he foresaw the circulatory system, but this is not the case. Erasistratus thought that the heart pumped blood through the venal system to all the parts of the body to convey nourishment. The liver transforms nutriments from the digestive tract. Galen would later assign a greater role to the liver because he did not accept Erasistratus' assertion that the heart completes the process started by the liver. To Galen the liver was the beginning of the venal system, not the heart. According to Erasistratus nourishment in the form of blood reaches its destination in tiny particles through very fine pores. The arterial system delivered vital spirits in air (*pneuma*), and some of the vital spirits in blood pumped by the left heart ventricle are transformed by the brain into psychic spirits (another *pneuma*) and subsequently conveyed through the nerves to all body parts. Each form of *pneuma* from veins, arteries, and nerves ultimately was delivered through such fine networks as to be invisible. Thus the organism was a combination of three mechanisms: appetites (*orexeis*), energies or forces (*dynameis*), and substances (*hylai*).

According to Erasistratus, the process which supplies nutriments in the form of blood from its production centre in the liver pumped by the heart to all parts, is analogous to the function of water in the garden. Just as in the garden, the water is consumed and so is the blood. The observation that a severed artery spurts blood is because of a vacuum created by the outflowing air. The vacuum's action (*horror vacui*) also causes the flow from the veins and nerves throughout the body. Perhaps Erasistratus' mechanical action was derived from or inspired by Strato.

Erasistratus demonstrated the metabolic process in a famous experiment with birds, the details of which are preserved in the tract *Anonymous Londinensis* of the 6th century AD. A bird or

similar animal would be deprived of food for some time, then it would be weighed, as well as its excrement, over a period of time. The postulate is the loss of weight of the combination of excretions and the animal is accounted for by the equivalent consumption of nourishment.

He wrote in a lost work, *On Fevers*, that fevers resulted from inflammations, a theory rejected by Celsus and Galen. He regarded as a main cause of disease an excessive flooding of the blood, because excessive nourishment ultimately compresses *pneuma* in the extremities of the arteries, thereby causing inflammations. Like Herophilus, he thought that men and women had the same diseases, none being peculiar to a single sex. Both Erasistratus and Herophilus saw the differences between sensory and motor nerves. Erasistratus rejected most therapeutic uses for bloodletting, again supplying the rejection by later medical writers who knew his works.

Although many late Greek and Roman writers cited Erasistratus' works, especially Galen, none adopted his medical system, and yet all were influenced by Erasistratus' specific contributions about the body's functions.

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See also **Anatomy and Physiology**

Biography

Born *c.*315 BC at Iulis on Ceos, Erasistratus was educated in Athens at the peripatetic school of Aristotle and Theophrastus and later in medicine on Cos. Then he moved to Alexandria and joined the Museum where he worked with Herophilus. None of his writing is extant but he had a great influence on subsequent work in physiology and medicine. He died *c.*240 BC.

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ERATOSTHENES

Scholar of the 3rd century BC

Eratosthenes, son of Aglaos, was a renowned scholar, poet, and scientist. His family was Cyrenean and was probably not of substantial means, although it could afford to send him to Athens for his education. His birthdate cannot be established with certainty. The *Suda* places his birth during the 126th Olympiad (276/275–273/272 BC), but this is too late and scholars now put his birth in the mid-280s BC. Eratosthenes did not receive his education at nearby Alexandria, but rather went to Athens to pursue philosophy. He studied with Zeno, founder of the Stoic school, Arcesilaus, head of the Platonic Academy, and Ariston of Chios, who had established a new branch of the Stoa. His varied philosophical studies reflect the eclecticism that consistently informed his life's work.

In 245 BC, at the age of about 40 and on the strength of his growing reputation in the fields of poetry, mathematics, and geography, Eratosthenes was invited by Ptolemy III Eurgetes, king of Egypt, to come to Alexandria. After the retirement of Apollonius of Rhodes, he assumed the directorship of the Library of Alexandria, one of the most prestigious positions in the ancient world. He remained there until he was succeeded by Aristophanes of Byzantium. His death, which occurred during the reign of Ptolemy V Epiphanes, may be dated to between 205 and 195 BC.

Eratosthenes was an expert in philosophy, grammar, poetry, chronology, mathematics, astronomy, and geography, and the breadth and the versatility of his intellect were both praised and censured in antiquity. Admirers called him a "second Plato". Others preferred to call him *pentathlos* ("jack of all trades"), since he was versed in so many branches of learning, or *beta* ("second best"), since he never specialized in any one area but showed enough brilliance to be considered the second leading authority in many disciplines. Each term was used in both derogatory and complimentary contexts. Eratosthenes himself coined the term *philologos* ("scholar" or "lover of learning") to describe his scholarly activities.

His works are known only by title or through fragments. No comprehensive edition of the fragments exists, although fairly good editions of individual areas have been published. His three-volume work *Geography* and his *On the Measurement of the Earth* epitomize his scientific spirit. Eratosthenes broke from his predecessors in rejecting Homer and mythology as trustworthy sources of geographical information and relied instead on his training in mathematics and astronomy and on the immense resources available in the Library at Alexandria. The *Geography* was intended to describe the entire inhabited world. In book 1 he attacked the use of Homer in geographical studies and pointed out the flaws of previous geographical works, which had now been rendered obsolete by the extensive information garnered from the military expeditions of Alexander the Great. In book 2 he fixed the world's breadth and length, and in book 3, he used his measurements to construct a map of the world. Eratosthenes' anthropology, set forth in book 2, is remarkable, in so far as he rejected the traditional categories of "Greek" and "barbarian", preferring to regard people on the basis of good and bad qualities. In *On the Measurement of the Earth* he used his mathematical skills to calculate the earth's circumference, which he fixed at 252,000 stades or 24,662 miles (accurate to about 1 per cent).

Eratosthenes is accredited with establishing the field of scientific chronology. He revised the existing Olympic victor lists (widely used for determining dates) and published his revision in two books. Using those Olympic lists and, for prehistoric events, the lists of Spartan kings, he wrote his own *Chronology*, which established a timetable from the Trojan War (which he

dated to 1184/83 BC) down to the death of Alexander (323 BC). Eratosthenes divided this 860-year period into 10 epochs, with events listed in the form of chronological tables.

Eratosthenes was eclectic in his approach to philosophy. He received his training from the Platonist Arcesilaus and the Stoic Ariston; he also heard the teachings of the Cynic Bion of Borysthenes. Eratosthenes' philosophical writings, which survive only in a few fragments, probably predate his arrival at Alexandria. The *Platonicus*, penned in the traditional dialogue format, dealt with Platonic astronomy and mathematics. Other works, such as *On Freedom from Pain*, *Ariston*, and *On Good and Evil Qualities*, have been lost. Many later writers heaped scorn on Eratosthenes' philosophical treatises, but their attacks are heavily flavoured by sectarian biases.

Eratosthenes was considered one of the great mathematicians of his day; Archimedes dedicated a book to him and corresponded with him on mathematical problems. Little remains of his works, however. He developed a method for determining prime numbers, the so-called Sieve of Eratosthenes, which in modified form (needed, since the system does not work with high numbers) is still critical for number theory research; he wrote on progressions and proportions; he solved the problem of how to double a cube, for which he designed a mechanical instrument; and he discussed musical scales. He applied his learning in geometry to the fields of astronomy and mathematical geography. For example, he measured the distance to the sun as 804 million stades (= 78 million miles, versus the actual 92.9 million) and to the moon as 780,000 stadia (= 76,500 miles, versus the actual 239,000). The tilt of the earth's axis was calculated, with great accuracy, as 23 degrees, 51 minutes, 15 seconds. A lost treatise, *On Means*, has not survived, but it did form part of the Hellenistic edited collection *Treasury of Analysis*, which contained works by such famous mathematicians as Euclid.

In the field of literary criticism, Eratosthenes' most important work was *On Ancient Comedy*, in 12 books. This work was very highly regarded in antiquity. Evidently he wrote essays on a wide variety of topics, such as textual criticism, authorship of plays, dialectology, dates of performances, historical issues, and the interpretation of individual passages. Although he published no editions of the plays, Eratosthenes did collate available manuscripts to fix textual readings.

Very little of Eratosthenes' poetry survives. Traces of Callimachean Alexandrinism are evident. For example, Eratosthenes' short epic *Erigone*, dealing with Icarius and his daughter Erigone and her dog, evokes with its style and form Callimachus' *Hecale*. His didactic poem *Hermes*, which describes the god's ascent to the heavens, recalls the didactic poems of the 3rd century BC, especially when Eratosthenes describes the eight spheres of the universe. Otherwise, Eratosthenes displayed in his poetry his usual independence of thought. For example, he rejected Homer and mythology as useful sources of poetic material – a view that was severely criticized, since the Greeks generally believed in the centrality of Homer in culture, history, and literature; he also insisted that the purpose of poetry was to entertain, not to instruct (a principle he called *psychagogia*).

Eratosthenes was vastly unappreciated in antiquity. He had few disciples, and his writings were often subjected by later writers to scathing attacks. The nickname *beta* was an ingenious but unwarranted term for someone who was truly brilliant in so many areas. He was one of those rare people for whom the sciences and the humanities are complementary. Applying his powerful intellect to fields as diverse as mathematics, chronology, literary criticism, geography, and philosophy, Eratosthenes had few equals in his or any other era.

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Biography

Born perhaps in the mid-280s BC in Cyrene, Eratosthenes was educated in Athens where he was a pupil of Zeno, Arcesilaus, and Ariston. At the invitation of Ptolemy III Eurgetes he moved to Alexandria in 245 BC where he succeeded Apollonius Rhodius as director of the Library. He made distinguished contributions to philosophy, grammar, poetry, chronology, mathematics, astronomy, and geography but was too versatile to be appreciated by his contemporaries. He died *c.*200 BC.

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ERETRIA

City in Euboea

Eretria is the second principal ancient city on the island of Euboea, the first being its immediate neighbour to the north, Chalcis. In 498 BC the Eretrians joined the Athenians in sending help to the east Greek Ionian cities in their rebellion against their Persian overlords; the Eretrians contributed 5 triremes and the Athenians 20, which Herodotus says were the cause of evil for both Greeks and Persians alike. Though this achieved little enough on behalf of the Ionians beyond sacking sanctuaries at Sardis, when the Persians in their turn attacked mainland Greece in 490 BC Eretria was one of their first targets. After forcing the surrender of the southernmost Euboean city, Carystus, the Persians disembarked at Eretria without opposition and put the walled city under siege. The city was betrayed to them after six days' resistance; they burnt and plundered the sanctuaries, in revenge for the burning of the sanctuaries at Sardis, and deported at least part of the population (they were settled by Darius near Susa, and they or their descendants were still there in Herodotus' time continuing to speak Greek, as he notes with some surprise). Doubtless more were left at Eretria following the surprise defeat of the Persians at Marathon, since there was no interuption in the continuity of the city.

The geographer Strabo, writing in the 1st century BC, mentions, in addition to the existing city of Eretria, the ruins of "Old Eretria", which he believed was the city destroyed by the Persians; the remains of houses were still visible there. Excavations at Eretria itself have demonstrated that this was not correct, that the walled city captured and plundered by the Persians was the same one that existed in Strabo's time, and which, indeed, had been the location of the city since much earlier, at least as early as the 8th century BC. What Strabo saw as "Old Eretria" was elsewhere. The most likely candidate is situated to the north of the Classical city, closer to Chalcis, on a promontory site known by its modern Greek name of Lefkandi. Here an earlier settlement and, adjacent, an extensive cemetery have been excavated going back to the turn of the 2nd and 1st millennia BC, including one extremely rich grave in a large apsidal structure surrounded by wooden posts. This site seems to have been abandoned gradually, at the same time that the site of Classical Eretria developed. Whether or not there is a direct connection, the movement of inhabitants from the one to the other, Lefkandi must be significant to the early history of the Eretrians.

In general, this area, including Chalcis, had benefited from its geographical position, facing on to the sheltered waters between Euboea and the mainland and the sea route to the southeast, past the islands of Andros and Tenos (which are a continuation of the Euboean land-mass) into the central Aegean and beyond, encouraging direct trade links through to the eastern Mediterranean (while Chalcis, situated at the narrows of the Euripus, also controlled the sea routes to the north). The link with the central Aegean had been important even in the Early Bronze Age, while the evidence from Lefkandi proves the existence of overseas contacts even at the beginning of the Iron Age when mainland Greece apparently survived in isolation. After this, Eretrian involvement in the Greek trading post at al-Mina in Syria and the distribution, to both east and west, of the Euboean pottery drinking cups decorated with suspended groups of semicircles (the "pendant-semicircle *skyphoi*") demonstrate the importance of overseas links. Both Chalcis and Eretria, possibly in conjunction, played a major role in the early colonization movement, such as the colony on the island of Ischia in the bay of Naples. Eretria is also credited with the earliest colonization of Corfu, though this was soon supplanted by a Corinthian foundation.

What the later Greeks remembered of this period was a war between Eretria and Chalcis, over possession of the Lelantine plain which was situated between them. Herodotus points out that the reason the Eretrians helped the Ionians in 498 BC was not support for the Athenians but because Miletus had earlier helped them in their war against Chalcis. Thucydides also mentions grand alliances, with the "rest of Greece" divided into supporters of one or other of the Euboean cities. Whether these alliances are a historical reality, or a projection back into the unrecorded early period of later political links, cannot be resolved. It may well be that defeat at the hands of Chalcis forced the Eretrians to abandon the site at Lefkandi and move to the Classical site of their city.

The early significance of Eretria is demonstrated by the archaeological discoveries there. The principal sanctuary in the city, that of Apollo Daphnephoros, boasted a major limestone Doric temple of the late 6th century BC with high-quality sculptural decoration in marble, fragments of which survive. It was sacked by the Persians. Its earliest antecedent was a small apsidal structure of the 8th century BC, one of the oldest temple buildings to be found in Greece. Other shrines included a heroon of the 7th century BC, and a Thesmophorion, also sacked by the Persians, where the finds include a deposit of drinking vessels, presumably used in the cult rather than left as offerings. Links with Athens were close: the arrangement of the late Archaic temple of Apollo Daphnephoros seems to anticipate the hexastyle Athenian temples such as that of Hephaestus (the "Theseum") and of Poseidon at Sunium, where the original construction is dated before the Persian Wars. At the time Eretria joined Athens to help the Ionians, the Athenians had just fought a successful war against Chalcis, seized a substantial part of Chalcidian territory, and placed Athenian settlers on it, a move that must have benefited Eretria – Herodotus, perhaps, is being a shade too knowledgeable when in effect he denies this as a reason for Eretria's support of Miletus in the Ionian revolt.

The city recovered from the Persian attack, and became part of the Athenian alliance, along with Chalcis and the other Euboean cities. Their importance was such that their rebellion in 446 BC forced the Athenians to make a quick deal with the Spartans so that they could suppress it. We have an inscription that details the harsh terms then inflicted on Chalcis, with enough evidence to show that similar conditions were meted out to Eretria. Part of Eretrian territory may have been occupied by Athenians; certainly, there was an Athenian stronghold there (but outside the city) in 411 BC, and the discovery at Eretria of large numbers of Athenian "white-ground" vases (*lekythoi*), of the sort favoured as burial offerings in Athens in the latter part of the 5th century BC, suggests the presence of an Athenian population. Eretria finally broke away from Athens in 411 BC, after the Syracusan disaster, but in the

succeeding century joined the second Athenian alliance. Philip of Macedon took the city into his sphere of interest – a Macedonian presence is subsequently attested by two vaulted Macedonian chamber tombs, one at Eretria itself and another by the road to Amarynthus to the south. During the Hellenistic period the strategic importance of this area was emphasized by the continued presence of a Macedonian garrison at Chalcis, one of the three vital strongholds, the so-called fetters of Greece. Eretria, under the shadow of this presence, seems to have had its own Macedonian garrison, at least at the time of the final war between the Romans and the Macedonian king, Philip V. During this, in 198 BC, the city was attacked and sacked by the Romans. After this, despite a short involvement in the subsequent war with Antiochus III, Eretria regained its freedom, and enjoyed a subsequent uneventful history as a small town of the Roman empire.

There are interesting architectural remains. The city walls, originally constructed in the 7th century BC (the date of the first west gate), have been partly uncovered. Sections of the early (pre-Persian) walls survive on the acropolis, while the existing traces of the walls of the lower town are probably late 4th century BC, with later repairs and additions. There are early Hellenistic houses, some of which have good-quality pebble mosaics. Most interesting of all is the theatre. Unlike most Greek theatres it was constructed on level ground, by hollowing out the orchestra and banking earth up against a surrounding support wall for the cavea. There is also an underground passage, of uncertain purpose, running from the stage area to the centre of the orchestra.

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ESTATES

Much of the history of the Greek countryside has been characterized by the struggle between state, wealthy landowner, and peasant for control of the productive agricultural land. Given the very varied nature of the Greek landscape, it was often advantageous to produce a particular cash crop on a large scale and export it to less suitable areas. This mode of production tended to favour the wealthy landowner who controlled large estates.

The first evidence for estate agriculture, as opposed to communal or individual subsistence production, comes from the Bronze Age. During the 17th and 16th centuries BC a series of large rural structures in eastern Crete, generally termed "villas", shows evidence for mass storage, high-status residence, and administration. These were presumably involved in the production of the wine, olive oil, and wheat mentioned in the Linear A texts. In the Linear B tablets from the Mycenaean palace of Pylos, dating to about 1200 BC, many individuals are listed as owning estates. The king's estate, which may have been one of several royal estates, was 1800 times as large as the smallest one on the list, and three times as large as those of his most senior subordinates.

The Archaic and Classical periods were characterized by widespread small landholding, often by tenant farmers who were very vulnerable to their landlords and creditors. Archaeological survey shows a wide distribution of small structures and intensive cultivation during this time. In the course of the Hellenistic period this gradually changed, with small farmsteads being abandoned and larger landowners, often based in the cities, gradually controlling more of the land. By the early Roman period much of the Greek countryside was dominated by large estates. Few of these were actually owned by Romans; in general there is little evidence for imperial estates, colonies of veterans, or estates owned by Roman aristocrats. The pattern was more one of large estates owned by rich local families who favoured and were favoured by Roman rule. Often they were based on villas sumptuously decorated with mosaics and equipped with bath houses. This was just one aspect of the increasing social stratification and economic polarization that characterized the period.

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ETHICS

Although ethical precepts of a rudimentary nature are found scattered throughout early Greek poetry and the surviving fragments of the Presocratic philosophers, there was no real attempt to formulate a coherent ethical system before the time of Socrates, Plato, and Aristotle. The Delphic maxims and the sayings attributed to the Seven Sages, epigrammatic lines from Hesiod and the gnomic poets, and early philosophical fragments, such as those of Xenophon and Heraclitus, provide early examples of attempts to collect and codify ethical wisdom gathered through the experience of many generations. Even the Homeric epics, with their professedly recreational objectives, came to be treated as storehouses of advice on human conduct.

Pythagoras (*c.*580–*c.*500 BC) founded a brotherhood which (probably under Orphic influence) appears to have advocated vegetarianism associated with the belief in transmigration of the soul. The brotherhood's rules emphasized simplicity in speech, dress, and food; for Pythagoras believed that the intellectual

nature is higher than the sensual, and that the best life is one devoted to mental discipline.

A note of scepticism was sounded in the 5th century BC when the Sophists questioned moral absolutes. Their common theme was that the traditional opposition of good and bad, or just and unjust does not reflect any objective fact of nature but is rather a matter of social convention. Protagoras of Abdera taught that "man is the measure of all things: of the things that are that they are, of the things that are not that they are not", meaning that human judgement is subjective, and that one's perception is valid only for one's self. The particular content of moral rules may differ, but rules of some kind are necessary, he argued, if life is to be tolerable.

But even this attempt to set up a new standard for interpreting moral actions fell before the onslaught of that very scepticism which Protagoras himself initiated. The laws and codes of society were shown to be themselves a perversion of the natural state of man. Society was depicted, as by Glaucon and Adeimantus in Plato's *Republic*, as the product of a social contract in which *physis* (i.e. natural law that "might is right") was prevented by *nomos* (i.e. established laws of society and the state) – an artificial code made by the weaker many to suppress the stronger few. Tyrants and suchlike were those who broke through these codes and asserted the primeval right of might. True justice was the interest of the stronger. It was better to do evil than suffer evil, and having done evil, it was better not to pay the penalty than to pay the penalty. The possible consequences of such a doctrine, if translated into action, can well be imagined if one reads its representation by Thrasymachus and Callicles in the *Republic* and *Gorgias* of Plato.

Despite his ruthless criticism of the Sophists, Plato was well aware that it was by countenancing their destructive criticisms that Socrates (470–399 BC) was able to establish ethical values on the sound basis of knowledge. Socrates' contribution to ethics is best described as a way of inquiry rather than a way of life. He would ask for a definition of a virtue such as justice, courage, piety, or temperance and then, through questioning, he would demonstrate the inadequacy of the definition as a complete account of the virtue in question, and suggest the need to reformulate the definition. This method of inquiry was bound to undermine the security of conventional beliefs, and Socrates was therefore tried on a charge of corrupting the youth of Athens and was put to death. He did not subscribe to the moral relativism of the Sophists, but maintained that virtue could be known and that the good person knew what constituted virtue or justice. However, he himself did not claim to have such knowledge. Nor did he distinguish sharply between the good and the advantageous, but maintained that those who knew what good was would in fact be good. If anyone did what was not good, it was because he was ignorant of the nature of goodness. Thus, a person can become good through education.

Socrates' life and teaching gave rise to many later schools of moral philosophy. Four such schools originated among his immediate disciples: the Cynics, the Cyrenaics, the Megarians, and the Platonists. The Cynics held that self-control was the essence of virtue and that it could be taught. This was, in particular, the view of Antisthenes. The Cyrenaics were hedonists: for them pleasure was the highest good, provided it did not dominate one's life. Pleasures could not be ranked by superiority; they could only be measured by intensity and duration. The best-known member of the school was Aristippus of Cyrene. The Megarians (founded by Euclid of Megara) maintained the unity of goodness despite its equation with wisdom, god, or reason. It is the final secret of the universe, and can be revealed only through logical inquiry.

For Plato (428/27–348/47 BC), goodness is an essential element of reality. It is the common element by which all good things are good, in other words, the pure form of goodness. Not only good things, but all other forms too (being themselves good) depend on the form of the good for their sustenance and manifestation, just as all things in our world depend on the sun. Evil has no independent existence; it is an imperfect reflection of the good reality. The virtue of anything depended on its function, and human virtue lies in the fitness of a person to perform that person's proper function in the world.

Plato believed in a tripartite soul (and its "bigger" version, the state) consisting of the rational, the emotional, and the appetitive, each with its corresponding virtue: wisdom, courage, and temperance. Justice, the fourth virtue, consisted in the harmony between these three elements, when each part of the soul kept to its appropriate place and function: intelligence must rule, emotion must obey, and the two together must control the appetite. While the unjust man lives in a state of internal strife, the just man, whose soul is thus harmoniously ordered, finds true satisfaction in the pursuit of knowledge. Plato doubtless saw in the life and death of Socrates the concrete embodiment of his ideal of the just man.

With Plato, just as with Socrates, the basic problem of ethics becomes a problem of knowledge. He who knows that moral virtue leads to happiness will naturally practise virtue. This is different from the view of many Christian thinkers who feel that the fundamental problem of ethics is one of will, since a person may know what is morally right, but may not have the willpower to carry it out.

Plato maintained that it is worse to do evil than to suffer it, because immoral conduct is symptomatic of a sick soul. Once a person has committed an unjust deed, Plato believed that it is better for him to be punished than to go unpunished, because punishment serves to cure the soul of its most serious ills.

For Aristotle (384–322 BC), the aim of life was happiness, which he defined as activity that accords with the specific nature of humanity. Although such activity is accompanied by pleasure, such pleasure is not its principal aim. Happiness results from the activity of reason (an attribute unique to mankind) functioning in harmony with human faculties.

While accepting the four-fold virtues of the Platonic system, Aristotle maintained the importance of other traits such as friendship, liberality, gentleness, truthfulness, and wit. But the most important was prudence (*phronesis*), i.e. the ability to discern the right course of action that leads to a good life. For him, virtues are essentially good habits acquired by constant practice, and he makes a distinction between moral and intellectual virtues. In connection with moral virtues, he introduces the famous doctrine of the mean. A moral virtue is a mean between two extreme vices, one of excess and one of deficiency. Thus liberality is a mean between avarice and profligacy, and courage is a mean between cowardliness and fool-hardiness. Intellectual virtues such as knowledge lead to contemplation, which is the highest human activity. Both these kinds of virtue

are only a means towards the attainment of happiness, which results from the full realization of human potential.

Aristotle makes a distinction between instrumental goods (which are good only because they lead to some other thing that is good) and intrinsic goods (which are good in themselves). He also distinguishes between distributive justice and remedial justice, as well as between theoretical wisdom and practical wisdom. Practical wisdom, the knowledge which leads people to right action and a happy life, is the subject of both politics and ethics.

Like Aristotle's other works, his *Nicomachean Ethics* prompted commentaries, glosses, and paraphrases from scholars of late antiquity and the Byzantine age. Two sets of scholia are known, the first and more ancient being anonymous, and the second by Aspasios. Partial commentaries by Michael of Ephesus, Eustratios of Nicaea, and an anonymous Byzantine scholar are preserved in a Latin translation by Robert Grosseteste, Bishop of Lincoln (1253). A paraphrase was copied for the emperor John VI Kantakouzenos. This exegetical material gave rise to summaries of ethics such as those by John of Damascus, Michael Psellos, and Joseph Rhakendytes.

The chief Stoic philosophers in Greece were Zeno of Citium, Cleanthes, and Chrysippus of Soli, while the development of Stoicism under the Roman empire is represented by Epictetus and the emperor Marcus Aurelius. There were also a number of popular moralizing anthologies, and a treatise *De Virtutibus et Vitiis* is attributed to Andronicus of Rhodes. Stoic impact on Byzantine writers is evident in works such as Plethon's treatise *On Virtues*. According to Zeno, the true end of man is an active life in conformity with nature, in other words, a life according to virtue, which is the will of God and hence the law of the universe. Happiness is produced by right conduct. Originating from the views of Socrates and Plato, Stoicism taught that nature was rational and orderly, and that the only good life was one led in harmony with nature. Since life is influenced by material circumstances, one should free oneself from them as much as possible. This freedom could be achieved by cultivating certain cardinal virtues such as practical wisdom, fortitude, discretion, and justice.

Whereas Plato believed that human passions and physical desires must be regularized by reason, the Stoics rejected passion altogether as a basis for deciding what is good or evil. Although one cannot completely eliminate physical desires, a wise person can appreciate the difference between wanting something (which is caused by our desires) and judging it to be good (which is caused by our reason). The wise man identifies himself with reason, not with desires, and will neither expect the fulfilment of physical desires nor be anxious about failing to attain them. Living in a state of wisdom and virtue is the only real good, and the efforts to attain it are not hampered by external circumstances as is the search for material wealth and bodily pleasure, since wisdom and virtue are intellectual matters and therefore are within our control.

The Stoics believed that all human beings have the capacity for reason, and therefore held a notion of equality much broader than the Greek sense of equal citizenship: common reason makes all individuals fellow citizens, observed Marcus Aurelius. From this followed the Stoic concept of a universal moral law appealing to all people. This universality of reason provided a basis for rejecting ethical relativism as taught by the Sophists. The pursuit of wisdom and virtue is open to all human beings irrespective of the external circumstances of their lives, and it is not surprising to find that the two principal exponents of Stoicism in the 2nd century AD were a slave and an emperor. Stoicism also exerted considerable influence on Byzantine monastic circles.

Plotinus (born *c.* AD 215), the founder of Neoplatonism, enjoined purification by self-discipline, with the object of ascending to the spiritual world and pursuing the divine out of love and enthusiasm. Some idea of the ethical theory of the Neoplatonists may be gained from its formulation in the *Sentences* of Porphyry. According to Proclus and Ammonius, evil is not a substance, but a privation of good; in particular, it was a moral turning away from God. This theory of evil and its reconciliation with free will and divine providence were adopted by Psellos and Isaac Komnenos. The Neoplatonists identified happiness as union with God. This was to be achieved in contemplation through purifying the soul of its corporeal existence by virtue. Through the Cappadocian fathers, this identification provided a fundamental structure to Byzantine moral theology. Psellos believed that Aristotelian ethics could be integrated into this structure in that "political virtue", which is the lowest type, concerns the rationally ordered and harmonious life of man as a union of soul and body, a life formulated by Aristotle and including practical wisdom and political action. To this, Porphyry had added purificatory and contemplative virtue, and Psellos saw in them the path that leads man as immortal soul to transcend the world and reach greater union with God. A similar integration of Stoic ethics (which prescribes the ideal life of man as he is) with the Platonic (concerned with life beyond this world) was proposed by Barlaam of Calabria in his *Ethics According to the Stoics*.

Epicurus (341–270 BC) taught that the only ultimate good was pleasure (being the only good known to the senses) and that the only ultimate evil was pain. The best pleasure, that which is accompanied by no painful want, is a perfect harmony of body and mind to be sought in plain living and in virtue. Intellectual pleasures were the more refined, and were higher than the coarser physical ones purely in terms of their quantity and durability. Tranquillity (*ataraxia*) is the highest pleasure obtainable, and comes from the removal of all emotional disturbances resulting from unsatisfied wants, through the elimination of all but the simplest needs which are then easily satisfied even by those who are not wealthy. What the Epicureans advocated, therefore, was a temperate, even ascetic, existence devoted to contemplative pursuits. If something increased pleasure and reduced pain, it was good as a means; otherwise it was not good at all. Justice was good only as a way of preventing mutual harm; but injustice brought pain and anxiety only through the perpetual fear of being discovered. The Epicureans placed high value on friendship and were famous for the warmth of their personal relationships; but friendship was good only because it tended to increase pleasure. It was believed that immediate pleasures should be postponed in order to attain more secure and durable satisfaction in the future. Therefore, the good life must be regulated by self-discipline. Religious beliefs and practices were considered harmful because they preoccupied men with disturbing thoughts of death and the uncertainty of life after death.

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ETRUSCANS

The Etruscans, a culturally unified people who settled in central Italy (between the Arno and the Tiber rivers) from around the beginning of the 1st millennium until the 1st century BC, were referred to by the ancient Greeks as the *Tyrrhenoi* (Tyrrhenians), a name that they also gave to the sea off Tuscany, still known today as the Tyrrhenian Sea. Undoubtedly, this name was given to the Etruscans because many Greeks believed that they had emigrated to Italy from the east, specifically from Lydia in Asia Minor, and were led away from a devastating famine by the son of the Lydian king, who was called Tyrrhenus (Tyrsenos). This story is preserved by the Greek historian Herodotus (1. 94. 2), writing in the 5th century BC, and is typical of traditional Greek explanations of the origins of people or city states, i.e. they began as the result of a migration under the leadership of a mythical founding hero. Other Greek historians (e.g. Hellanicus and Anticleides) had similar beliefs about the eastern origins of the Etruscans and connected them with the Pelasgians, an ancient wandering people who eventually settled on the coast of Italy. The one ancient exception to this view is the Greek historian and rhetorician Dionysius of Halicarnassus (1. 25–30), writing towards the end of the 1st century BC, who argued that the Etruscans were autochthonous. This, according to Dionysius, was the Etruscan view of the matter. Indeed the Etruscans did not call themselves the Tyrrhenians at all, but referred to themselves as Rasenna or Rasna. This is also the view of most modern scholars who, as the result of decades of archaeological study, now believe that the Bronze Age inhabitants of central Italy (from *c.*3000 to 1000 BC) should be considered the ancestors of the Iron Age inhabitants, i.e. the Etruscans.

Unfortunately, because Etruscan civilization was relatively short-lived and because their once extensive literature was either obliterated by the Roman conquest or else simply failed to survive the process of transmission during the Middle Ages, very little is known about the internal events of Etruscan history. The archaeological record and the incidental references to the Etruscans by contemporary Greek and Roman writers are not complete or always reliable sources of information about Etruscan culture. However, these sources do yield considerable information about the trade relations between Greeks and Etruscans. For example, the early Euboean colonies at Pithecusae and Cumae were deliberately well situated for trade with Etruria and, by the end of the 8th century BC, Etruscan culture was largely transformed and Hellenized by Greek and other eastern objects and techniques that were introduced by the colonists. In the 7th century BC many Corinthian and east Greek vases made their way to Etruria, and by the 6th century BC the market was dominated by fine Athenian wares. There is also evidence that in the 6th century BC many Greek potters worked with Etruscan taste in mind. For example, the class of pottery known as "Tyrrhenian amphorae" features especially colourful narratives with nonsensical inscriptions that were unlikely to be recognized as such by the Etruscan buyers. Other ingenious potters, such as Nicosthenes, began supplying the brisk Etruscan market with types of vases familiar to the Etruscans from their own native *bucchero* pottery (e.g. the so-called Nicosthenic amphorae and *kyathoi* or wine ladles), but decorated in the popular Greek black-figured style.

In exchange for Greek pottery and other imported objects (Near Eastern seals, bronzes, etc.) it seems that the Etruscans mainly traded raw materials (metals). During the 8th and early 7th centuries BC, however, some Etruscan objects do begin to appear in the votive deposits at several international Greek sanctuaries (e.g. Delphi, Olympia, Dodona, and Samos). These objects are not trade goods but typical Italic votive offerings such as bronze helmets, shields, horse bits, and other ornaments. In fact, according to Pausanias (5. 12. 5), it was the Etruscan king Arimnestos who made the very first dedication (a throne) at Olympia. During the 6th century BC Etruscan merchants seem to have circulated more widely, since their native *bucchero* pottery has been found at nearly every major site in Greece except for the international sanctuaries of Delphi, Olympia, Isthmia, and Nemea, which instead attracted finer Etruscan donations, such as bronzes, art objects, and war trophies. Most of the *bucchero* vases found in Greece are tall stemmed cups with two vertical handles – a shape that inspired the development of the *kantharos* (large-handled cup) in Boeotia and Athens. The Athenian Agora has produced a few examples of Etruscan *bucchero*, although the bulk of Attic trade with the Etruscans occurred later than the production of this type of pottery. So, in the later 6th and 5th centuries BC, the Etruscans probably traded other goods such as bronze utensils, candelabra, tripods, and spouted pitchers (known today as *Schnabelkannen*) which were widely admired by the Greeks.

The influence of Greek imports on Etruscan art is easily recognized as well. Native artists copied the Euboean Geometric and early Orientalizing styles as well as all the Corinthian styles down to the middle of the 6th century BC. Greek shapes were introduced into *bucchero* pottery. Athenian black- and red-figured pottery was also imitated by local artists, and Greek subjects and styles were introduced into Etruscan tomb painting. Greek influence is additionally apparent in Etruscan metalworking (particularly in the production of certain fibulae) and in the Etruscan art of architectural terracottas which was developed as the result of trade relations with the Peloponnese.

There is also evidence of Greeks who actually lived and worked in Etruria. For example, according to Pliny (*Naturalis Historia*, 35. 152), Livy (1. 34), and Dionysius of Halicarnassus (3. 46), one Demaratus of Corinth emigrated to Tarquinia (with three Greek artisans) in the middle of the 7th century BC, carried on a prosperous business, married a local noblewoman, and sired the fifth king of Rome (Tarquinius Priscus). Tarquinia was also home to a significant school of Etrusco-Corinthian vase

painting that has been linked to Corinthian immigration. In addition, the port city of Tarquinia, Gravisca, had a wealthy Greek quarter that included a sanctuary with Greek-style temples where a syncretism of Greek and Etruscan cults took place. The Etruscan city of Caere also seems to have been partly settled by Greeks, who called it Agylla and dedicated a treasury at Delphi. At Caere an itinerant Greek artist named Aristonothos produced an interesting and unusual hybrid *krater* (mixing bowl) depicting a naval battle and the blinding of the Cyclops Polyphemus by Odysseus and his men (Paris, Louvre).

Etruscan culture was influenced by the Greek imports and immigrants in other ways as well. For example, the Greeks brought to Etruria the alphabet and the art of olive cultivation. Greek-style hunts and athletics are depicted in many Etruscan tombs, although it seems unlikely that the Etruscans accepted the social ideals that went along with these sports in Greek culture. Etruscan weapons and warfare, including the use of warships as well as the organization of the cavalry and infantry (phalanx formation), also seem to have been influenced by Greek practice. In addition, Etruscan dress was closely related to Greek models, although the Greeks were known to have admired the native Etruscan sandals with their hinged wooden soles. The Etruscan elite also adopted the practice of banqueting on couches with drinking equipment of the type used at the Greek symposium. But unlike the Greeks, the Etruscans reclined together with their wives – a practice that the Greeks thought was barbarous.

Despite this apparent cultural dependence, Greek–Etruscan relations seem to have worsened after the large Etruscan fleet was defeated at Cumae in 524 BC by the Greeks and the Latin alliance. At this time, the Greeks controlled the overland routes into Campania and soon after they gained control of the seas as well. By the end of the 4th century BC, trade with Greece had declined considerably and very few dedications were made by Greeks in the sanctuary at Gravisca. Some Greek trade with Etruria continued in the 3rd century BC with areas as remote as southern Russia receiving a few Etruscan objects. In this small way, before they were conquered by the Romans, the Etruscans contributed to the *koine* (shared culture) of Hellenistic civilization.

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EUBOEA

Island in the Aegean

Euboea is the second largest Greek island after Crete and runs for about 180 km along the eastern coast of mainland Greece. It is separated from the mainland by a strait, known as the Euripus, that narrows at the mid-point along the west coast. Euboea is separated into three geographical areas, each region defined by a major peak. The well-watered and forested north is dominated by Mount Pyxaria (1341 m). The central, most fertile, region is south of Mount Dirfis (1745 m), the highest point on the island, and boasts forests of chestnuts and pines on the north side. Surrounding plains produce grains, vines, figs, and olives. The southern region of the island sits below Mount Ochi (1394 m). The island has substantial mineral wealth as well, including quantities of lignite and magnesite (now being exported), marble and asbestos. The marble (cipollino) of Carystus was widely popular in antiquity, particularly in Rome during the imperial era.

From the 5th century BC bridges across the Euripus have joined Euboea to Boeotia allowing access to the western portion of the island from the mainland. With the exception of the reasonably good port located at Kymi along the rocky east coast, Euboea was most accessible by sea at Chalcis and Eretria, also on the west coast and on the southern tip at Carystus. Important modern ports are still located at Chalcis and Carystus.

Throughout the history of Euboea, environmental and geographic divisions of the island were paralleled by sociopolitical divisions. According to tradition, Euboea was originally settled by people from Thessaly – the Ellopians in the north, the Abantes in the centre and west, and the Dryopes in the south. Each region included, and still includes, a major town. Histiaea-Oreos, the modern village of Orei in the north, is located on the coast. The town was important from the Bronze Age until Classical times when it became known as either Histiaea or Oreos (perhaps an old deme name). Histiaea-Oreos controlled a fairly large and fertile plain and was described by Homer as "rich in vines" (*Iliad*, 2. 537).

Chalcis, in the centre, is located at the narrowest part of the island, facing Boeotia. The town was a trade centre for pottery and metalwork and was important during the Dark Ages. Chalcis flourished despite losing its independence, first to the Athenians, then to the Macedonians, and then to the Romans. Carystus, in the south, is located on the coast below Mount Ochi. On top of Mount Ochi is an example of the famous "dragon houses" of Euboea – ancient structures whose use is unknown. Carystus' importance stems from its control of the

southern entrance to the Euripus and of maritime traffic through the Andros straits as well as from its cipollino marble and asbestos. (Still visible in the ancient quarries are abandoned, but worked, columns from the Roman period.) Carystus suffered destruction at the hands of the Persians when its inhabitants were the first to try to oppose the invaders in 490 BC; it later came under Athenian control and may have had an Athenian cleruchy settled there. Near Carystus is Geristos, the site of a sanctuary of Apollo (first mentioned by Homer) and the one safe harbour on the southeast coast of Euboea. It was the first good stopping point for merchant ships travelling from the east and it is possible that this was the main port for Carystus in Classical times.

According to tradition, the original Euboeans were later joined by Ionians from Attica, Aeolians from Phthiotis, and Dorians from the Peloponnese. Because the textual record for the settlement and activities of early Euboea is limited, the site of Lefkandi and its rich material remains play an important role in recreating a picture of Late Bronze-Age and Dark-Age Euboea. At Lefkandi, located between Chalcis and Eretria (explored in 1965–66, 1969–70, and again in the 1980s by the British School at Athens), was found extensive early evidence for occupation from the Early to the Late Helladic and the Geometric periods, and in particular the site sheds light on the transition from the Mycenaean period to the early Dark Age. Of particular historical importance for an understanding of post-Mycenaean economic, social, and architectural developments in Greece is a cemetery found on Toumba hill (about 200 m north of Lefkandi village). At this site is the largest building known from Dark-Age Greece (*c.*1000 BC). It was an apsidal building, about 10 m wide and 45 m long, built of mud brick on top of a stone foundation. There was a double grave in the main room, one grave containing the richly adorned remains of a cremated male warrior and an inhumed woman. The other grave held four inhumed horses. The material remains show clear contact with other areas in the Mediterranean (such as Crete and Attica) and, more surprisingly, the existence of this structure testifies to a much more active economic role for Euboea than had been previously suspected for this early period.

During the 8th century the inhabitants of Chalcis and Eretria were among the first Greeks to found colonies and trading posts on the coasts of Sicily, Italy, Thrace, the islands of the Aegean, and possibly Syria. In fact, at Eretria, mentioned in the Homeric catalogue of ships and located about 18 km south of Chalcis, the earliest physical evidence dates to the Geometric period, when Eretrians established colonies abroad. Currently it is believed that in the late 8th century competition for land and power between these two cities led to the Lelantine War, named after the rich Lelantine plain. The victor in this war is unknown, but the war is reputed to have involved numerous Greek states. Herodotus says that Miletus supported Eretria and Samos supported Chalcis and Thucydides implies that other states were involved, but further details remain stubbornly elusive.

Euboea played an important role in many of the major historical events of the Archaic and Classical periods. For example, Hippias, the former tyrant of Athens, fled there after his expulsion from power. Indeed, after his arrival in Euboea, the Chalcidians allied with Boeotia against Athens, partly in an attempt to restore him. As a result, in 506 BC, the Athenians attacked and defeated the Chalcidians, then took their land for the settlement of 5000 cleruchs. Similarly, the inhabitants of Eretria angered the Persians because of their support of the Ionian revolt, so that in 490 BC the Persians attacked and burned Eretria, and then enslaved the citizens. Off the cape of Artemisium, a promontory on the northwest coast of Euboea, the Greeks and Persians fought one of their first important sea battles in 480 BC. (The statue of Zeus or Poseidon hurling a thunderbolt was also found there and is now located in the National Museum at Athens.)

Euboea joined the Greek forces to defeat the Persians and became a member of the Delian League until 411 BC. However, the Euboeans came to resent Athenian rule and revolted from the league in 446 and in 411 BC. The first revolt was put down by Pericles, who expelled the inhabitants of Histiaea-Oreos and settled at least 1000 cleruchs there (though after the Peloponnesian War the Spartans drove the cleruchs out and recalled the refugees). The second revolt, probably led by Eretria, was more successful, since the Athenians had been weakened by internal troubles and war with Sparta. Also in 411 the Chalcidians and Boeotians built a bridge over the Euripus, partly to interfere with Athenian maritime trade. Yet, between 378 and 376, due to dramatic changes in the balance of power in Greece, the Athenians induced most Euboean cities voluntarily to join a new maritime league. Thereafter, the populace of Euboea vacillated in their support between the Athenians and the Macedonians.

The Euboean alliance with Athens was not long lived. After the Battle of Leuctra in 371 BC, control of Euboea passed to the Thebans. In 358 the Euboeans were liberated by Chares, who restored the alliance with Athens. In 341 a Euboean confederacy was established, though after the Battle of Chaeronea (338) the island was incorporated under Macedonian control (Philip of Macedon recognized the strategic importance of Euboea and, indeed, claimed that the "master of Euboea is the master of Greece"). Chalcis sheltered at least one important refugee in this period – Aristotle died in Chalcis in 321, at the age of 62, after fleeing there because of persecution by an anti-Macedonian faction in Athens.

Roman interference in Euboean affairs began in earnest during the 2nd century BC. The Romans captured Histiaea in 199 and then in 198 captured and ransacked the city of Eretria, and in 87 BC Eretria was utterly destroyed and deserted. In 194 Euboea, as a whole, was taken from Macedon by the Roman general Flamininus, who briefly restored the Euboean confederacy. In 146 BC Chalcis was nearly destroyed for fighting with Macedon against Rome. The island was next attached to the province of Macedonia, until 27 BC when Greece became the province of Achaea. Though Euboea's political fortunes declined after incorporation into the province of Achaea, the island was still economically viable. Greek lands, including land in Euboea, became an important source of economic power and prestige for Roman elites and archaeological investigations reveal villas and other signs of wealth. Thus, for most of the period under Roman rule, Euboea did not show signs of serious economic decline, at least until early Byzantine times, in part because of its marble and in part because of its favourable position in the trading networks used by the Romans.

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EUCLID

Mathematician of the 4th–3rd centuries BC

Hardly anything is known about Euclid's life (even in antiquity he was sometimes confused with the Socratic Euclides of Megara); even his dates are uncertain. Proclus (5th century AD) knew only that he was later than the pupils of Plato and earlier than Archimedes (which could be inferred from the surviving works of Euclid and Archimedes, and so probably does not rest on independent evidence). Proclus' guess that he lived in the reign of Ptolemy I Soter (305–282 BC) is a reasonable one, but is based only on anecdotes; his claim that Euclid's goal in pursuing mathematics was to give support to Platonism is certainly no more than an attempt to include the best-known mathematician of the ancient world within Proclus' own school.

A number of mathematical works by Euclid have survived. The *Data* defines and discusses what must be "given" in a geometrical proof; *On Divisions* (surviving only in Arabic) deals with problems about dividing figures into parts that have a given ratio to one another; the *Phaenomena* concerns the astronomical applications of spherical geometry; the *Optics* is on the geometrical aspects of optics. Another work attributed to him, the *Catoptrica*, which deals with the geometry of reflection, seems not to be by Euclid in its present form, but may contain much Euclidean material.

These works establish that Euclid was a substantial creative mathematician in his own right, but there is no doubt that he is most renowned not for this, but for a work that is a compilation and systematization of the work of his predecessors, the *Elements*. Euclid was not the first to compose such a work. The first attempt to compile and systematize geometry appears to have been made by Hippocrates of Chios in the late 5th century BC, and this may have been the basis of much of the earlier books of Euclid's work. It is unclear which (if any) parts of the *Elements* are Euclid's own. He certainly made use of Theaetetus' work on irrationals, and Eudoxus' on the theory of proportion (and he uses extensively the mathematical method devised by Eudoxus and usually called "the method of exhaustion"), and there is clear evidence that other sections of the material incorporated in the *Elements* predate him (for example, Common Notion 3, "if equals are taken from equals, the remainders are equal", is cited by Aristotle in a form very close to that of Euclid's own).

The *Elements* is in 13 books (the alleged 14th, on dodecahedrons and icosahedrons inscribed in a sphere, was written by Hypsicles in the 2nd century BC, and the 15th, on the regular solids, is a compilation of the 6th century AD or later). Book 1 begins with a statement of definitions and of the axioms of mathematics, the unprovable and allegedly self-evident assumptions that are the starting point of mathematical proofs (though even in antiquity some of them, e.g. Postulate 5, were controversial). It then goes on to deal with elementary theorems on triangles, intersecting straight lines, and parallelograms. Book 2 deals specifically with rectangles (the view once held that the theorems in this book constitute a kind of "geometrical algebra", that is a geometrical method of solving quadratic and other equations, is now no longer thought to be probable). The subject of books 4 and 5 is the geometry of the circle and inscribed and circumscribed rectilinear figures. Book 5 is devoted to the theory of proportion; it is probably dependent on the work of Eudoxus, and constitutes one of the most sophisticated and elegant surviving pieces of Greek mathematics. In book 6 the conclusions of book 5 are applied to plane geometry. Books 7, 8, and 9 are on number theory, and book 10 deals with irrationals. Finally, books 11, 12, and 13 deal with solid geometry, with a series of propositions parallel to those on plane geometry in the early books. Though the individual sections are impressive in isolation, Euclid's real achievement is to bring together a mass of mathematical material and to articulate it into a coherent and ordered system, based on the minimum of axioms.

Euclid's *Elements* subsequently became the basis of all mathematical education, not only in the Roman and Byzantine periods, but right down to the mid-20th century, and it could be argued that it is the most successful textbook ever written. His clear and logical exposition of mathematics facilitated the process by which geometry became an essential part of the educational syllabus, and a familiarity with its principles an indispensable accomplishment for every educated man. Certainly it helped to establish mathematics as one of the foundations of Hellenic culture, and the discovery of formal proof as one of Greece's most valuable and enduring legacies. A series of commentaries on the *Elements* demonstrates its continuing importance. The most important of them (on book 1) was written by Proclus in the 5th century AD. Proclus was primarily a philosopher rather than a mathematician, and his commentary stresses the significance of Euclid's geometry for Neoplatonism. Though the work was undoubtedly designed for students of philosophy who were beginners in mathematics (and may have been based on a series of lectures given by Proclus), there are

signs that a general readership was also envisaged, which, if true, would be evidence of a continuing interest in Euclid's work among a wider educated public.

Like most school textbooks, the *Elements* was adapted by teachers to fit their own needs, and before the 19th century the text universally used was not Euclid's own, but an adaptation of it devised by Theon of Alexandria in the late 4th century AD. Theon corrected what he believed (often wrongly) to be errors in Euclid's mathematics, tidied up his diction, and introduced material (including whole propositions) with the intention of making the argument clearer. There are signs that some of the additions were not Theon's own, but were taken over from earlier adapted texts. It was only with the edition of F. Peyrard, completed in 1818 (and made possible by Napoleon's looting of manuscripts from Italian libraries), that a good text close to Euclid's own was made available. The *Elements* was first translated into modern Greek in 1820.

RICHARD WALLACE

See also **Mathematics**

Biography

The most famous Greek mathematician, even though almost nothing is known about his life. He may have lived in the reign of Ptolemy I (305–282 BC) in Alexandria. Surviving mathematical works include the *Data*, *On Divisions*, *Phaenomena*, *Optics*, and *Catoptrica*. His best-known work is undoubtedly the *Elements* in 13 books. It remained the standard textbook of geometry for 2000 years.

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EUDOXUS *c.*390–*c.*340 BC

Mathematician and astronomer

Though he is reported to have taught at Cyzicus and studied in Egypt, most of Eudoxus' activity is associated with Plato's Academy in Athens, where he was working in the middle of the 4th century BC. None of his writings survives, and so we must reconstruct his work through reports in later writers. He was clearly a man of very broad interests. Aristotle (*Nicomachaean Ethics*, 10. 1172b) reports that in ethics he held that the supreme good is pleasure, on the grounds that pleasure is what all creatures desire; Aristotle remarks that his view attracted support, not from the cogency of the argument, but because of Eudoxus' own reputation for moral rectitude. He is also said to have done work in geography, and to have written a code of laws for his home city Cnidus.

Eudoxus is, however, best known for his work in astronomy. He did a good deal of detailed observational work. He appears to have been influential in marking the sun's annual movement in terms of the 12 signs of the zodiac, and to have introduced the practice of identifying individual stars in constellations by letters of the alphabet. He is the first Greek astronomer of whom we can say with reasonable certainty that he had access to the ancient astronomical knowledge of the Babylonians (though his supposed study in Egypt left no discernible trace); for example, in the placing of the solstitial and equinoctial points in the middle of the appropriate signs of the zodiac (rather than at the beginning), and in equalizing the lengths of the seasons, he is following Babylonian rather than standard Greek practice. His main contribution, however, was to apply contemporary mathematics, and particularly the geometry of the circle and the sphere, to astronomical problems. Both the fixed stars and the sun seem to move round the earth in circular orbits on the surface of a sphere. The moon and the planets, however, appear to move in much more complex ways (indeed the planets sometimes appear to move backwards). Eudoxus' system is an attempt to explain these movements mathematically in terms of combinations of circular orbits, the axes of which were not fixed but rotated around different axes – or, in other words, complex arrangements of concentric spheres. He believed that the movements of the moon and the sun could be explained by using three such spheres for each body, while the five visible planets needed four each, making, with the sphere of the fixed stars, 27 in all. The apparent retrograde movement of the planets is accounted for by having their third and fourth spheres rotate in opposite directions to one another, and around axes at an angle to one another, which produces movement in something like a figure-of-eight; Simplicius tell us that Eudoxus called this figure a *hippopede* (horse-fetter). Despite the mathematical sophistication of this system, it failed to account even for those movements that were well known to astronomers of his time (perhaps the most striking example being the inequality of the seasons). It soon had to be modified (and complicated) by Callipus of Cyzicus, a version of whose system was the one used by Aristotle, and it was later superseded by the more accurate systems of Eratosthenes, Hipparchus, and Ptolemy. Nevertheless, Eudoxus was the first to make a serious attempt to create a mathematical model of the movement of the heavenly bodies, and so can claim to be one of the founders of scientific astronomy. His system was an entirely mathematical one, and he made no suggestion that we know of as to the mechanism whereby the mathematics could be converted into actual moving bodies.

Important though his astronomical work is, however, there is no doubt that it was his contribution to mathematics that had the most permanent and creative influence. He is said to have been largely responsible for the material on proportion contained in book 5 of Euclid's *Elements*. He is credited with the discovery of a method of handling both commensurable and incommensurable magnitudes, which meant that it became possible to simplify and clarify proofs in a number of important areas, and opened up the way for significant new developments in geometry. Eudoxus seems also to been responsible for one of the most powerful and characteristic strategies for proof in Greek mathematics, the so-called "method of exhaustion". The name by which it is now generally known

is seriously misleading. It is used to relate the areas or volumes of figures bounded by curves to those of figures bounded by straight lines, and its purpose is to avoid the difficulties posed by infinite division; for example, although a polygon can be inscribed in a circle as closely as you like to the circumference of the circle, it can never be inscribed so closely that another polygon cannot be inscribed between the first polygon and the circumference of the circle, and the space separating the two can never be entirely exhausted. Eudoxus' method avoids this problem by proving that, for example, a given polygon encloses an area that can be neither bigger nor smaller than that enclosed by a given circle, and so must be equal to it. This ingenious strategy enabled the solution of many problems (including those arising from attempts to square the circle) and is the basis of much of the geometry of Euclid and Archimedes.

RICHARD WALLACE

Biography

Born *c.*390 BC at Cnidus, Eudoxus was taught geometry by Archytas and medicine by Philistion. He is said also to have visited Egypt, Cyzicus, and Halicarnassus before settling in Athens to teach, where he was acquainted with Plato. None of his writings survive, but he made important contributions to mathematics and astronomy. He died *c.*340 BC.

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EUNUCHS

"Eunuchs" may seem at first sight a jarring entry in an encyclopaedia of Greece and the Hellenic tradition, for eunuchs are primarily associated with the Orient. Indeed the Greeks of the Classical world linked them especially with Persia, where court eunuchs were prevalent, as on the Assyrian model. Herodotus alludes casually to the eunuchs to be found at the Persian court, but also to those in Median and Egyptian circles; in the *Acharnians* (91–122) Aristophanes has the Great King's Eye report to the Athenian assembly, flanked by two eunuchs; famously, Xenophon in his *Cyropaedia* presents an elaborate justification of the use of eunuchs by king Cyrus; while Ctesias' *Persica* is full of tales concerning eunuchs at the Persian court.

Yet eunuchs and castration did have a closer proximity to the Greeks. Castration was as much a part of Greek mythology as that of other Near Eastern religions. Hesiod in his *Theogony* (178–200) describes the castration of Uranus' genitals with a sickle by Cronus, the blood from which was received by Earth who bore the Erinyes, the Giants, and the Meliae nymphs. The genitals themselves were thrown into the sea, from which grew Aphrodite. The effect of the castration of Uranus was disempowerment, and he was replaced by his son Cronus as the supreme deity. Castration also found a place in Greek epics (e.g. the mutilation of Melanthius in the *Odyssey*, 22. 474–77). In the real world, eunuch priests had their part to play in the Anatolian cults of goddesses, notably that of Cybele.

It is clear that eunuchs also impinged more directly on the Greek world. Herodotus records that Periander the tyrant of Corinth sent 330 boys of the leading families in Corcyra (modern Corfu) to the Lydian king Alyattes at Sardis to be castrated, though the people of Samos saved them. Perhaps more reliably, Herodotus states that during the Ionian revolt the Persians threatened to eunuchize Ionian boys, a threat which the historian says came to pass. Herodotus also relates the history of Hermotimus (the most favoured of Xerxes's eunuchs) who came originally from Pedasus east of Halicarnassus. He was bought as a prisoner of war by a Chian, Panionius, who castrated him as part of his regular trade in eunuchs, whom he would sell at Sardis and Ephesus. Plato even asserts that Callias, a wealthy Athenian in late 5th-century BC Athens, had a eunuch doorkeeper, though it is vital to remember that Plato was writing a century later. Other evidence for eunuch slaves in Athens is found in Terence's *Eunuch*, which was based on a work of the Athenian playwright Menander; in the extant Roman version the plot revolves around the fact that an Athenian woman has a eunuch slave whose place is taken by an uncastrated male so that he can gain access to the house and seduce a girl. In the 4th century BC Aristotle certainly seems very familiar with eunuch physiognomy, discussing for instance their impotency, gender status, and voice, though his knowledge may be based on the Hippocratic corpus (itself problematic) rather than on personal observation.

With the advent of Alexander the Great, the Greek world came into even closer contact with the tradition of political eunuchism. For when Alexander conquered the Persian empire he did not simply replace it with an extension of the Macedonian kingdom, but sought to present himself as the legitimate ruler of Persia. This entailed his adoption of the Persian royal style and its trappings, including the use of court eunuchs. In all the subsequent Hellenistic kingdoms (with the exception of Macedonia, which maintained its character undiluted) eunuchs are to be found. It is well known that the decision to murder Pompey after his flight to Ptolemaic Egypt following his defeat in the civil war with Julius Caesar was primarily encouraged by the eunuch Potheinus, a key figure in the regency of Ptolemy XIII. Eunuchs feature prominently in the stories of Mithridates VI, king of Pontus. A more unusual case marks the principality of Pergamum; the establishing figure of this was Philetaerus, said to have been eunuchized as a child when crushed in a crowd at a funeral.

With the shift of power in the Mediterranean to Rome, Greek political power took a back seat, but the Hellenistic court style, based on the Persian model, eventually triumphed at the Roman court of late antiquity; as a result of this eunuchs are a striking feature of the history of the later Roman empire. This development is associated primarily with Diocletian (284–305), who seems to have enhanced imperial status and ceremony to promote the authority and security of the emperor.

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EURIPIDES *c.*480–*c.*407/06 BC

Tragedian

Euripides spent the last two years of his life as a guest of Archelaus in Macedonia. He won his first victory in 441 BC and three others in his lifetime (including one with the trilogy that contained *Hippolytus* in 428 BC, and an additional one for the posthumous performances of *Iphigenia in Aulis* and *Bacchae* in 405 BC). Although he later became the most popular Greek tragedian, in his own lifetime Euripedes was less successful than Aeschylus and Sophocles.

Nineteen of his plays, out of some 90, survive (one of which, *Rhesus*, is probably by a later poet), including our only complete satyr play, *Cyclops*. In addition to the ten plays that survive because they were the most commonly read in the Hellenistic and Roman periods, a further nine survive through a lucky accident: they were preserved in a manuscript that presents them in a quasi-alphabetical order (they evidently formed one part of a collection representing *The Complete Euripides*). In addition, there are extended fragments of the *Antiope*, *Alexander*, *Archelaus*, *Bellerophon*, *Cresphontes*, *Cretans*, *Erechtheus*, *Hypsipyle*, *Captive Melanippe*, *Wise Melanippe*, *Phaethon*, and *Stheneboea*.

The dates of performance for nine of Euripides' surviving plays are known, and others are tentatively proposed on the basis of evidence provided by the scholia or other writers or of his own developing metrical practice: *Alcestis* (*c.*438 BC), *Medea* (*c.*431), *Heraclidae* (*c.*430), *Hippolytus* (*c.*428), *Andromache* (*c.*425), *Hecuba* (*c.*424), *Suppliant Women* (*c.*424–420), *Electra* (*c.*422–416), *Troades* (*c.*415), *Heracles* (*c.*415), *Iphigeneia among the Taurians* (*c.*414), *Ion* (*c.*413), *Helen* (*c.*412), *Phoenissae* (*c.*409), *Orestes* (*c.*408), *Cyclops* (uncertain), *Iphigeneia at Aulis* (*c.*405, posthumous), *Bacchae* (*c.*405, posthumous), and *Rhesus* (possibly post-Euripidean).

Euripides has been called the first psychological playwright. Longinus praised his depiction of madness and love (*On the Sublime*, 15. 3). Aristotle says that Sophocles claimed that he depicted men as they ought to be and Euripides as they were (*Poetics*, 1460b33ff.). Whereas in Aeschylus god confronts god, and in Sophocles man confronts god, in Euripides man confronts man, or woman, and often himself or herself. Only Medea can stop Medea: her main debate is with herself. In the works of other playwrights the traditional heroes are endorsed; Euripides focuses instead on women, children, and slaves. He shows us women doing noble acts (e.g. Iphigeneia, Macaria), children acting nobly (both characters just mentioned, and Menoeceus in *Phoenissae*), and the figure of the noble slave (e.g. in *Helen*).

Euripides questions traditional beliefs and attitudes, and his plays feature debates that were also popular among the Sophists of his time. In these debates both strong emotions and strong intellectual positions are expressed; examples are Hippolytus' confrontation with Theseus (*Hippolytus*) and Hecuba's with Helen (*Trojan Women*). This bothered many critics in the 19th century who would have preferred inspired emotionalism without philosophical debate (see Nietzsche's condemnation of Euripides for just this rationality, which he considered a debasement of the noble goals of tragedy).

Aristophanes' *Frogs*, which highlights a contest between Aeschylus and Euripides, shows the latter as an innovator and an iconoclast. It is from Aristophanes that we get the dubious impression that Euripides was a misogynist. He was instead a scientist of the emotions and focused on unconventional, passionate women. It may have been his idea to have Medea kill her children, the ultimate revenge against the husband she hated. His psychological characterization is outstanding; he gave the first instance of a guilty conscience (*Orestes*, 395–96), described as an internal disease rather than an externally imposed punishment as we find in Aeschylus and Sophocles.

Euripides' language is accessible, and at times colloquial. His structure varied from the most organized and conventional (*Bacchae*, *Iphigeneia among the Taurians*) to loose and episodic (*Trojan Women*, *Iphigeneia at Aulis*). He specialized in arias to enhance emotional states; he also excelled in debate (*agon*) as a revelation of character. His choruses can range from being integrated with the plot, to the less relevant. This may reflect a trend of the time.

There were regular revivals of Euripides' work after 386 BC. Around 330 BC the Athenian politician Lycurgus prescribed that copies of the texts of the plays should be deposited in the official archives, and that future performances should conform to these texts. The purpose was to safeguard the plays from adaptation and interpolation by actors and producers, of a kind to which they had already become vulnerable. These copies were lent to the Egyptian king Ptolemy I Euergetes, and will have passed into the Library at Alexandria, to form the basis of the critical edition made by the librarian Aristophanes of Byzantium (*c.*257–180 BC). Aristophanes divided the lyrics (previously written as continuous prose) into metrical cola. He also added brief introductory comments, probably making use of Aristotle's lost *Didaskaliai* (production records). Part of these comments survive in the *hypotheses* (plot summaries) that were prefixed to the plays by later scholars in the Roman period. The composition of commentaries (scholia) on the plays was began in the Hellenistic period (by scholars such as Aristarchus of Samothrace, ?217–145 BC, and Didymus, ?80–10 BC). Further scholia were added in the Byzantine period.

The Romans prized Euripides, and Ennius (239–169 BC) wrote adaptations: *Andromacha*, *Hecuba*, *Iphigenia*, and *Medea*;

Pacuvius (*c.*220–130 BC), *Antiopa*; and Accius (170–?86 BC) *Alcestis*, *Bacchae*, *Hecuba*, *Medea*, and *Troaïdes*. Half of the plays by Seneca (?AD 1–65) are from Euripides: *Hercules* [*Furens*], *Troades*, *Phoenissae*, *Medea*, and *Phaedra*.

The selection of the ten "school edition" plays that we possess was probably done in the 2nd or 3rd century AD, and scholia were included. After parchment gradually replaced papyrus (around the 4th century AD) the unselected plays gradually passed out of use. Stobaeus' anthology (5th century) of gnomic sayings often quotes lines from Euripides, including many from the lost plays. After the Athenian Academy was closed in AD 529, the Classical texts disappeared from sight for several centuries and did not re-emerge until the revival of learning in the middle Byzantine period, when they were copied from the uncial into the new cursive script. Among the scholars who wrote commentaries and handled the texts of the plays the most important are Thomas Magister (late 13th century), Manuel Moschopoulos (*fl.* 1300), and Demetrios Triklinios (early 14th century). Triklinios brought a new metrical awareness to the amendment of the text, in particular the lyrics.

The nine alphabetical plays mentioned above are preserved only in two 14th-century manuscripts, L and its copy P. The earliest manuscript is the Jerusalem palimpsest from the 10th or 11th century and it includes the school selection. The Euripidean plays most commonly read in Byzantine times were *Hecuba*, *Phoenissae*, and *Orestes*. *Christus Patiens* was a play written in the 11th or 12th century on the passion of Christ using lines from Euripides, Aeschylus, and Lycophron, and some of the ending of the *Bacchae* has been reconstructed from it.

Medea, *Hippolytus*, *Alcestis*, and *Andromache* were first printed in Florence about 1494; an edition of 18 plays followed in 1503; *Electra* was not published until 1546. For the next 400 years there were revivals and reworkings of Euripides' plays in Europe, most notably by Racine, Goethe, Schlegel, and many others. In the 20th century Euripides is the playwright of social protest par excellence.

There have been many performances of Euripides' plays in modern times in Greece. A few of the most notable are: *Alcestis* in 1901 (music by Gluck, direction and translation by Constantinos Christomanos) and 1934 (Karolos Koun, director, and set by Giannis Tsarouchis); since 1868 *Medea*: 1942 (Takis Mouzenidis, director, music by Manos Hazidakis), 1956 (Alexis Minotis, director, music by Hadzidakis, starring Katina Paxinou), and 1989 (Aspasia Papathanasiou, director and star); *Hippolytus* since 1897: in 1937 (Dimitris Rondiris, director, Dimitris Mitropoulos, Alexis Minotis as Hippolytus, and Katina Paxinou as Phaedra) and 1965 (Dimitris Rondiris, director, music by Dimitris Mitropoulos; Aspasia Papathanasiou as Phaedra); *Bacchae* was notably done in 1962 (Alexis Minotis, director, music by Hadzidakis, Alexis Minotis as Kadmos, Basilis Kanakis as Pentheus, Katina Paxinou as Agave), 1977 (Karolos Koun, director), and 1986–88 (Theodoros Terzopoulos, director, with his Attis theatre). Mikis Theodorakis's opera *Medea* (1991) is a parable of the history of Greece.

There are many films based on Euripides; Cacoyannis's *Trojan Trilogy* is based entirely on his work, with *Electra* (1961), *Trojan Women* (1971), and *Iphigeneia* (1976), all protesting in their own way against unjust oppression; Mikis Theodorakis composed the music for these films. Jules Dassin filmed *Phaedra* (1962) with a social message, contrasting the mass tragedy of loyal workers with the personal tragedy of dissolute jet-setters; he also based his *Dream of Passion* (1978) on *Medea*. Pasolini's *Medea* (1967) dealt with the myth behind the play in psychological and anthropological terms.

MARIANNE MCDONALD

See also **Tragedy**

Biography

Born *c.*480 BC in Phyla, Euripides moved to Athens in childhood and first competed in the city Dionysia in 455 BC, winning his first victory in 441. He won four other victories (including one posthumously in 405). Of about 90 plays written, 19 survive (one of them spurious), including our only complete satyr play. He was less successful than Aeschylus and Sophocles in his lifetime but more popular than them later. He died in Macedon *c.*407/06 BC.

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EVAGORAS *c.*445–374/73 BC

Ruler of Cypriot Salamis

For much of the 5th century BC Cyprus was a bone of contention between the Greeks and Persia. When in 449 BC Athens, the leading Greek maritime power, and its alliance (the Delian League) were forced to come to terms with the Great King (the so-called Peace of Callias), whereby Cyprus was conceded as belonging within the Persian sphere of influence, the Greeks of Cyprus were effectively left to fend for themselves. The Persian-backed Phoenician minority quickly gained the ascendancy and Phoenician kings were imposed on a number of Greek Cypriot cities, including the most important, Salamis, which had been ruled by the Teucrid dynasty since the city's foundation at the close of the Bronze Age. A member of this dynasty, the youthful Evagoras, was forced to flee, but he returned a few years later (possibly in 415/14 BC), perhaps with Athenian help, expelled the Phoenicians, and restored Greek royal rule. It is commonly believed that Evagoras immediately submitted to Persia and paid tribute, but this is unlikely. At any rate his actions in helping Athens, an enemy of the Great King, do not point to such a conclusion.

The evidence for the career of Evagoras is none too plentiful and much of it is equivocal, but on balance it seems to point to his having been from the very start fixed on the policies we see him pursuing in later years. The development and strengthening of Salamis was the first and indispensable step to unifying the island under his rule and wresting it from Persian control. Close ties with Athens, the heart of Hellas, and the full Hellenization of the island went hand-in-hand with this aim. It should be stressed that Hellenization in the Cypriot context meant (for the Cypriot Greeks at least) a process of catching up with their fellow Greeks. Having lived in relative isolation for many centuries, the Cypriots still adhered to older ways of living and thinking.

By 412 BC Evagoras had rendered Athens, locked as it was in a life-and-death struggle with Sparta (the Peloponnesian War), services sufficiently important for both him and his sons to be rewarded with the city's citizenship. In 405 BC, when the Athenian fleet was destroyed by Sparta, the Athenian general Conon, with a number of warships and many hundreds of Athenians, took refuge with Evagoras in Cyprus. Together Conon and Evagoras planned the defeat of Sparta and the restoration of Athenian power. Because Persian money and resources were necessary for this, Evagoras made his peace with the Great King and agreed to be his tribute-paying vassal. In 394 BC at Cnidus the Spartan fleet was decisively defeated by a Persian-financed force led by Conon. The Spartan naval hegemony was over. A grateful Athens heaped honours on the two men, including the setting up of their statues in the Agora next to the image of Zeus Soter, an unprecedented and extraordinary gesture, extended only to two other men, Timotheus, the son of Conon, and, centuries later, Hadrian, the great Roman emperor and philhellene.

Evagoras now turned his attention to the unification of Cyprus, which meant the subjection of the other city kingdoms of the island, all of them tribute-paying clients of Persia. He seems to have been well on the way to achieving this when the Great King, fearful and suspicious, resolved to strike

first and restore the status quo. War broke out around 390 BC and lasted for some ten years. Allied with Athens, who repeatedly sent ships and troops to the island, and Egypt, Evagoras initially went from success to success. He captured Tyre and caused much of Phoenicia and Cilicia to revolt against Persia. Citium in Cyprus, the main Phoenician stronghold on the island and always strongly pro-Persian, nevertheless held out, and the tide definitely turned against Evagoras when Sparta and Persia enforced the King's Peace in Greece in 386 BC. A central clause of the peace recognized Greek Asia and Cyprus as belonging to the Great King. Athenian forces evacuated the island and Evagoras stood alone, bereft of his vitally important Greek support. A mighty Persian armada invaded the island, probably in 385 BC, and though Evagoras fought well and bravely, and with considerable initial success, in the end he found himself besieged in Salamis and was forced to come to terms. He was still strong enough, however, to resist complete subjection to Persia and to insist instead on being granted his previous status of an autonomous, but tribute-paying, client king. He died a few years later, assassinated with his eldest son, in rather mysterious circumstances in 374/73 BC.

One of the most eminent of British historians summed up the career of Evagoras thus: "There are few more striking demonstrations in Greek history than the attempt ... of Evagoras of Salamis, with the limited resources of a small island, to challenge the great Persian empire and to make Cyprus more Greek than Greece" (J.B. Bury in *A History of Greece*, edited by Bury and R. Meiggs, 3rd edition 1951, p.73). That contemporary Greece, and in particular Athens, whose honorary citizen he was, would have concurred fully with this judgement is proved not merely by the high praise of the prominent Athenian orator Isocrates (above all in his pioneering oration, the *Evagoras*), but also by two new fragments (identified in 1979) of the stele bearing the decree voted in honour of Evagoras by the Athenian assembly in 393 BC (D.M. Lewis and R.S. Stroud, *Hesperia*, 48 (1979): pp. 180ff.). It would appear that the public herald was to proclaim on the occasion of a dramatic festival, *inter alia*, that Evagoras had done his duty by Greece and Greek freedom as a Greek ought.

While Evagoras' policy of the further Hellenization of Cyprus met with much success (the wholesale importation of Athenians and their culture left an indelible mark on the island), his political aims failed. After so many years of war, which exhausted the resources of Salamis, he was at the end no nearer his purpose than when he began. Nevertheless, his goal of a united island that would moreover form part of the wider Greek world, and the tenacity with which he pursued it, lived on to inspire the modern Greek Cypriots in their own equally long struggle for national rehabilitation.

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Biography

Born *c.*445 BC as a member of the ancient Teucrid dynasty of Cyprus, Evagoras was at first forced to leave the island but returned *c.*415/14 to expel the Persian-backed Phoenicians and restore Greek rule. Allied with Athens, he united most of Cyprus. After the King's Peace (387/86) he defied the Persians and secured honourable terms. He was assassinated in 374/73 BC.

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EVIL EYE

Many elements of belief associated with commonly held ideas of the evil eye are evident throughout the Greek tradition from antiquity to the present day. While the basic notion of the evil eye, that harm or damage may be caused by a glance, is found unequivocally at many points in this tradition, it is probably more helpful to see it in the context of a larger group of beliefs evident in Greek thought, which involves the idea that change in physical or emotional condition may be effected in humans, animals, and inanimate objects by means of the power of sight alone and without obvious physical contact. The ability to cause such change is not confined to human beings, for it is also attributed to various supernatural powers and forces; nor is the change thought to be necessarily evil, although it is without question most commonly associated with bad effects and the fear that an envious, jealous, or perhaps hateful glance may cause serious harm is particularly prominent. Care is to be exercised in relating the Greek tradition concerning the evil eye to superficially similar but often significantly divergent ideas found in a broad range of cultures around the Mediterranean and beyond.

Firm literary evidence for the existence of many elements within this complex of ideas goes back at least to the early Classical period, while cross-cultural comparison and archaeological evidence may well suggest that such beliefs were present in some form from the very beginnings of a recognizable Greek culture. Phrases directly equivalent to the term "evil eye", such as *vaskanos ophthalmos* or *ophthalmos poneros*, are attested only from later antiquity, hut writers throughout the pagan tradition such as Aeschylus, Plato, Theocritus, Callimachus, Apollonius Rhodius, Libanius, and Heliodorus allude in a wide variety of contexts to the closely related idea of the malignant and communicable power of envy (*phthonos*) or jealousy (*vaskania*); indeed, it is probable that the verb *vaskainein* in ancient Greek is to be taken primarily as meaning "to bewitch", very much in the sense of casting the evil eye through jealousy. Kindred notions are also found in the powers attributed to the gorgon and basilisk of Greek myth. Plutarch (*Quaestiones Convivales*, 5. 7. 680–83) provides the fullest discussion of the topic in antiquity and proposes that the eyes of a jealous person emit a stream of particles that strike the victim and so transmit harm, a theory of explanation close to one suggested by Democritus (to which he alludes) and followed by

several later writers. As Plutarch also reveals, the notion of malignant envy or the evil eye was sometimes treated with suspicion and scorn in antiquity, but nevertheless its persistence in the Greek tradition as a whole attests to its general acceptance.

A number of passages in the New Testament (e.g. Matthew 20: 15, Mark 7: 22, and Galatians 3:1) are connected with this tradition and Church Fathers, such as Basil, John Chrysostom, and Eusebius, discuss the belief and its implications for Christianity. All conclude that the apparent power of the evil eye is to be attributed to the activity of the Devil, but all fail to deny completely the validity of the idea. Given the inability of such intellectual early Christian authorities to do so, it is not surprising that the literary and material record from the Byzantine period down to the present day indicates a widespread popular belief in the power of the evil eye and in apotropaic practices associated with it, many of which are scarcely Christianized.

Belief in the evil eye is thus very widely attested, though not universally accepted, in the popular culture of modern Greece. The term generally used is *kako mati* (evil eye) or simply *to mati* (the eye), although there are many other local and regional expressions, most derived in some way from the *ophthalmos* (eye) of ancient Greek (e.g. *thiarmos* in western Crete). Symptoms associated with "the eye" tend to be ill defined, since specific indications will normally suggest a more conventional diagnosis, but in general everything thought to have been affected by it will show signs of sickliness and loss of function. Symptoms in adults commonly include a feeling of malaise or depression, yawning, chronic feverishness, nausea, or headache; young children may sleep badly, lose their appetites, or cry constantly; animals will display signs of weakness, lethargy, and infertility; crops will fail to grow or will wither; and machinery will cease to function properly. Despite its vague symptoms the evil eye is thought to be very serious and, if left untreated, potentially fatal.

Explanations of the cause of the evil eye focus most usually on perceived jealousy or envy. It is commonly associated either with over-zealous admiration to the point at which the thing admired is actually coveted or else with the expression of insincere admiration. Some individuals are thought particularly likely to cause it, perhaps because of their social situation (e.g. elderly spinsters) or their unpleasant demeanour, while physical characteristics, such as blue or green eyes (usually an indication of foreignness), may also be thought to be signs of danger. Occasionally it may be thought to have been deliberately induced by magic. The view that the evil eye may be cast unknowingly and without any deliberate intent is, however, also widespread, making both detection of origin and prevention very difficult.

Practices to avert the evil eye are numerous and varied. Among the most common objects employed are cloves of garlic, blue beads or thread, the image of a staring eye (usually blue), and Christian symbols and objects such as the cross or an amulet containing holy material; these are either worn or placed in contact with whatever is being protected. Other techniques involve such things as spitting after making a compliment, or the invocation, either aloud or silently, of a spell or prayer.

Diagnosis and cure of the evil eye are also performed in a wide variety of ways, many of which show strong regional and local characteristics. Healers, often women, are to be found and openly acknowledged in most villages and towns. Among the commonest methods of diagnosis and cure, which usually form a single ritual, are those that involve dropping a substance or object (often oil but perhaps salt, incense, charcoal, or a cross) into a vessel of water. Affliction is determined through the behaviour of the material in the water, and, in the curative phase of the ritual, victims will drink some of the water or have it sprinkled on them; sometimes the healer will exhibit the victim's previous symptoms. The rituals, whatever their precise nature, are accompanied throughout by spells or prayers that almost always involve at least some overtly Christian elements, although these are often used in ways that are far from orthodox. Indeed, the Church, doctrinally speaking, disapproves of the popular notions of the evil eye since these tend to challenge the central Christian principle of the omnipotence and goodness of God. Nevertheless an acceptable explanation is found by seeing the supposed power of evil eye as a manifestation of the familiar activity of the Devil or his demons operating through humans, and the Orthodox Church has available, at least at a local level, a fully Christian ritual for removing it.

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See also **Magic; Spells; Superstition**

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EXECIAS

Potter and painter of the 6th century BC

Execias worked as a vase painter from about 545 to 530 BC, but his career as a potter started earlier: his signature is recognized on an amphora representing Heracles and Geryon (now in Paris, Louvre F 53, from Vulci), which is assigned to the so-called Group E, as well as on a number of cups (e.g. Munich, Antikensammlungen 2044, from Vulci). He signed a neck amphora (Berlin, Staatliche Museen 1720, from Vulci) and a type A belly amphora (Vatican Museums 344, from Vulci) as both potter and painter: "Execias painted and made me". Execias' great contribution to the Athenian black-figure tradition lies in his potting as well as his painting. Although the number of vases attributed to him is not large, the range of shapes is very wide, including amphorae (type A and type B), neck amphorae, a Panathenaic amphora, a *dinos* (goblet), a *pyxis* (box), cups, a calyx crater, and funerary plaques. He was responsible for the development of the type A cup and the type A belly amphora – both vases are of large size, around 60 cm high – and probably invented the calyx crater since the earliest surviving example was decorated by him (Athens, Agora Museum, from the Acropolis north slope). He demonstrated a preference for amphorae, especially of the neck type and of type A, identified by its decorated flanged handles and a stepped foot.

The influence of the earlier Group E has been observed in his work, especially in his painting style as well as in his choice of ornaments and shapes. His scenes are simple, including only the essential elements of a composition. He demonstrated, however, an interest in the detailed representation of armour, manes, hair, and drapery, and experimented with the rendering of three dimensions. His workmanship is characterized by precision and his scenes of action by originality, since he seldom used standard motifs or compositions. He preferred to interpret well-known scenes anew, such as Ajax carrying Achilles, or invent others, such as Dionysus in his ship.

Execias has been considered a master of narration; by eliminating extraneous figures from his scenes, he focused on just those essential for his story. Despite the limitations of the black-figure technique, he often attempted to render some degree of emotion on the faces of his figures without distorting them, as on the mourners' faces on his funerary plaques. He preferred scenes that displayed strong tension in a subtle way, while occasionally depicting the moment before the action, as in the scene of Ajax's suicide (on a belly amphora, Boulogne Museum 553, France). In these respects Execias could be considered the forerunner of the Classical style.

Just as Execias had a liking for certain vase shapes, he also favoured specific patterns framing his pictorial scenes. Chains of lotuses and palmettes with separated and finely drawn leaves ornamented the neck or framed the panels of amphorae. The handles of his type-A amphorae are decorated with a tendril of ivy leaves.

His originality is also expressed in other forms. He broke the Attic convention of a tondo in the interior of cups and painted Dionysus sailing across the interior of a *kylix* (wine cup, Munich, Antikensammlungen 2044, from Vulci). Both the "coral-red" background of the scene and the pair of eyes decorating the exterior of the cup seem to be his inventions. Moreover, he was the first painter to depict ships sailing around the rim of a *dinos* (Rome, Villa Giulia Museum 50599). Execias often named not only his heroes but also their horses, the representations of which are classified among his favourite subjects.

Execias' iconographic repertoire is based on mythological scenes, especially those related to the Trojan War, but few of them followed established patterns. Unlike his contemporaries, he showed a lack of interest in the secular *komos* (revel) and the symposium, while the sole scenes from everyday life that he depicted are the *prothesis* (laying out) and the *ekphora* (carrying to burial) of the dead on funerary plaques. His Trojan scenes are devoted to episodes from the lives of Ajax and Achilles or to the events leading to their deaths and do not follow the versions of the myth found either in the *Iliad* or in any other of the known literary texts. Thus, Execias depicted Ajax and Achilles playing a board game – the scene appears here for the first time in Greek art and was repeated numerous times in vase painting thereafter – Ajax's suicide, Achilles killing Penthesilea, Ajax lifting the dead Achilles from the ground, the dead Patroclus fought over by Hector and Diomedes, as well as scenes with Memnon. Although Execias does depict the heroes Heracles, Theseus, and the Dioscuri, it was the two Trojan heroes that prevailed in his scenes. It has therefore been suggested that Execias countered the heroic virtue that other artists portrayed through Heracles by his use of Ajax and Achilles.

Although Execias' interest in Heracles was not remarkable, the scene with Heracles wrestling with the lion introduced to Athenian vase painting the composition of the lion fight in a prone position. His treatment of the Dioscuri is also innovative: he represented the homecoming of Castor before Polydeuces and their parents, Leda and Tyndareus. Previously the two heroes had appeared either at the Calydonian boar hunt or at the wedding of Menelaus and Helen. Execias was less interested in the depiction of a specific mythological event than in the heroes themselves.

ELENI ZIMI

Biography

Execias of Athens was active as a painter and potter from about 545 to 530 BC. He signed two amphorae as both potter and painter and his contribution to Athenian black-figure vase decoration is recognized as combining both activities. He departs from convention to depict both the character of his subjects and the tension of the moment.

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EXILE AND DETENTION

Myth repeatedly describes individual banishment, usually for murder, but also for incest and other forms of sacrilege, as religious purification of a whole community. The outcast, interdicted from fire and water, deprived of ancestral worship, and cursed with all his issue, was deemed legitimate prey for any man. His only possible safety came from supplication at alien shrines or courts, and mere sufferance was often his most ambitious hope. Survival of this religious element of banishment into the time of the city state can be illustrated by *inter alia* a historical event and a festival at Athens. Some years after Megacles, the head of the Alcmaeonidae, had in 632(?) BC sacrilegiously allowed the suppliant supporters of the defeated Cylon to be slain, not only was the whole clan exiled but the bones of its dead were exhumed and cast beyond the borders of Attica. At the purificatory festival of Thargelia in honour of Apollo, Athens still included in the Classical period the practice of beating and driving beyond its borders two *pharmakoi* (scapegoats) who at least theoretically took the evils of the city with them.

Banishment in the Archaic, Classical, and Hellenistic periods could be suffered by whole communities, groups, and individuals. Inhabitants of conquered cities were at the mercy of their victors, who sometimes chose to drive them out. That they could often then keep a sense of communal identity was due to allies who gave them shelter within their walls or found them land to settle, and they often later managed to regain their homes (all three of these fates befell the Plataeans driven out by the Thebans at the beginning of the Second Peloponnesian War). The survivors of the citizens sold as booty when Philip II sacked Olynthus in 348 were settled 32 years later by Cassander in his new foundation of Cassandreia.

Greek historians frequently do not make clear whether groups (or individuals) were exiled or fled voluntarily. In most cases their removal was due to governmental change in the struggles between tyrants, oligarchs, and democrats. Nearly all these exiles were from the upper classes, and could stay with sympathizers or had connections in other states, and frequently returned home at a change of government (that they themselves sometimes engineered) or upon an amnesty.

Individual exile was largely a political weapon. Most victims were politicians or generals, who suffered for real or alleged treason, military failure (as in the case of the historian Thucydides), or just unpopularity. The punishment, that was for either life or a set number of years, could be severe because it usually entailed deprivation of civic rights and confiscation of property. An exile returning illicitly ran the risk of summary execution; anyone harbouring an exile became himself liable to expulsion. Individual recalls and general amnesties were not, however, uncommon: Diodorus Siculus states (18. 8. 5) that according to Alexander the Great's decree in 324 BC, 20,000 Greek exiles were permitted to return to their homes. Voluntary exile could be chosen to avoid trial and even after the sentence of death had been passed (Socrates famously refused his friends' request to go into exile). In the 5th century BC the Athenian *ekklesia* was enabled to vote in favour of holding an ostracism, whereby if at least 6000 citizens took part the man whose name was recorded on the highest number of *ostraka* (potsherds) was exiled, without loss of citizenship or property, for ten years. Aristotle claims (*Athenaion Politeia*, 22) that the law was introduced by Cleisthenes in 508/07 BC, but the first ostracism was not held until 487. The last man ostracized was the demagogue Hyperbolus between 417 and 415, after which the *graphe paranomon* (indictment for offence of proposing an illegal law or decree) became the preferred means of attacking politicians. Forms of ostracism were employed also at Argos and at Syracuse – at the latter it was called *petalismos* ("leafing") since the names were written on olive leaves.

Information on detention is scant and largely Athenian. Non-productive long-term incarceration was extremely rare, its function served by deprivation of civil rights. Short-term incarceration, however, was occasionally used, sometimes in addition to a fine: otherwise the prison in Athens, under the supervision of the Eleven, held men on remand for certain crimes (e.g. maltreating parents or failing in military duties), men delinquent in the payment of some categories of fines, and men awaiting execution. Soldiers captured in battle were usually executed, taken or sold into slavery, exchanged, or ransomed. Occasionally they were held in detention as hostages, sometimes later to be exchanged (e.g. the Spartiates held by the Athenians in the city and elsewhere in their empire for nearly four years after their capture on Sphacteria in 425 BC). In contrast, the survivors of the Athenian expedition against Syracuse in 415–413 were imprisoned for life in nearby stone quarries, where some years later the dithyrambist Philoxenus, temporarily imprisoned for adversely criticizing the poetry of the tyrant Dionysius I, wrote one of his more famous pieces.

The most innovative penal theorist was Plato, who in his *Laws* prescribed varying terms of imprisonment and exile for different classes of criminals (citizens, metics, visiting foreigners, and slaves) and different crimes. More revolutionary, in addition to a large general and a purely punitive prison, he envisaged a reformatory (*saphronisterion*), where suitable offenders convicted of impiety were to be subjected to at least five years of counselling before being reintegrated into society (recidivists were, however, to be executed). Plato's ideas were largely ignored in antiquity.

Greeks under Roman rule were subject to Roman law, which, with modifications, survived in the Greek world until the Ottoman sack of Constantinople in 1453.

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See also **Ostracism**

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F

FABLE

A fable (*ainos, logos, mythos*) can best be defined as a fictitious, metaphorical narrative. It has been asserted that fables typically are about animals and have a moral purpose, but these restrictions do not take into account the genre's historical multiformity: fable collections traditionally include stories with rational as well as irrational characters, and the genre's functions may vary widely, notably from persuasive to satirical, from moral to explanatory, from didactic to illustrative. It is to this flexibility that the genre owes its remarkable, millennia-long vitality.

Throughout ancient literature fables are used in a variety of other literary genres. The oldest extant Greek fables occur in Archaic Greek epic (Hesiod) and lyric poetry (Archilochus, Semonides, Stesichorus, Ibycus, Simonides). In the Classical period fables are adduced in both prose and poetry; they are applied not only by tragedians (Aeschylus, Sophocles), satyric playwrights (Achaeus), and comedians (Aristophanes), but also by historiographers (Herodotus), rhetoricians (Aristotle), orators (Demosthenes (allegedly)), and philosophers (Socrates (allegedly), Plato, Xenophon). From the Classical period onwards fables are typically connected with the name of Aesop, the legendary fabulist. By then, already, fables were apparently so popular that authors could confine themselves to mere allusions, obviously presupposing the audience's knowledge of the rest of the story.

At the beginning of the Hellenistic period Demetrius of Phalerum compiled the first fable collection, probably an anthology of fables excerpted from the works of Archaic and Classical authors, made up as a repertory for orators looking for a fable that could appropriately be used in some speech or situation in accordance with the advice given by Demetrius' teacher Aristotle in what is the oldest extant treatise on fable as a genre (*Rhetoric*, 2. 20). Regrettably enough, Demetrius' collection has been lost but for its title (*Collections of Aesopic Fables*), preserved by Diogenes Laertius.

The extant fable collections all date from the imperial period of Greek literature. Most are in prose. Of the oldest one only fragments of 14 fables remain (*Rylands Papyrus* 493; early 1st century AD). The verse collection by Babrius (late 1st or 2nd century AD) has also been incompletely preserved, but 144 fables have come down to us in their original form, whereas knowledge of what has been lost may be gained from prose paraphrases. The largest collection is the so-called *recensio Augustana* (see below), consisting of 231 allegedly Aesopic, but really anonymous, prose fables concluded by *epimythia* (less felicitously called "morals"). In addition, we have three small prose fable collections, probably used in rhetorical education. One, by Aphthonius (4th century AD), includes 40 fables, all equipped with both a *promythion* (an introductory moral, serving as title) and an epimythion; another, by his contemporary Libanius, has only three fables; a third, anonymous collection (*Codex Brancatianus*) contains 14 fables with iambic *epimythia*.

At the same time, fables continued to be used in other literary genres. In the Hellenistic period fables are adduced not only by poets such as Callimachus and Nicander and by epigrammatists (Leonidas), but also by historiographers (Theopompus, Diodorus Siculus) and philosophers (Philodemus). In the imperial period fables occur not only in traditional genres – notably historiography (Dionysius of Halicarnassus, Flavius Josephus), oratory (Aelius Aristides, Dio of Prusa, Themistius), and philosophy (Philo) – but also in new genres such as epistolography (Julian, Libanius), romance (Aesop romance, Alexander romance, Achilles Tatius, Heliodorus), and biography (Plutarch).

Simultaneously, the theory of the fable was also studied. Of great importance is the treatise on fable by the rhetorician Theon (late 1st century AD), who formulated the oldest extant – and, according to some, the best possible – definition of the genre: "a fable is a fictitious story that gives the semblance of reality."

The polytheistic background of the ancient fables, traditionally featuring "pagan" gods, did not prevent the early Christian writers from using them in their own works, witness references in poems by St Gregory of Nazianzus, in epistles by St Basil the Great and St Gregory of Nyssa, in homilies by St John Chrysostom, and in apologetical works by Epiphanius of Salamis and Theodoret.

Byzantium preserved the heritage of the ancient fable tradition. On the one hand, the fables from antiquity were copied and paraphrased; on the other, they inspired Byzantine fabulists to write new versions or original fables of their own. The

anonymous prose fables must have been very popular, demonstrated by the great number of manuscripts that regularly combine the "Aesopic" fables with the *Life of Aesop*. The fable collections can be subdivided into three classes, named after the library where its principal manuscript was found, or after its editor: the ancient *Augustana* (Augsburg); the Byzantine *Vindobonense* (Vienna; 127 fables); and the *Accursiana* (Bonus Accursius; 130 fables). They are also called, respectively, *recensio* I, II, and III: II is mainly based on I and Babrius, III on I and II. The exact date and purpose of these collections are still under debate.

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FAIRS AND MARKETS

"Landings, sailings, numbers of people and goods and ships: these prove the merit of a fair, a harbour, or a market", said Dio of Prusa in the 1st century AD. Evidence of Greek fairs and markets is scattered and piecemeal. Demosthenes and Aristophanes are among sources for the Classical period; Hellenistic inscriptions supply details of trade regulations at fairs; in Roman times, special coin issues, commemorating local festivals, imply busy economic activity there.

The agora was the central public space of an ancient Greek city. The word also denoted the activity of a market, whether it took place in that public space, at a fair, or at a harbour.

In Classical Greece fairs (*panegyreis*) were chiefly religious festivals, but trade was a part of almost every *panegyris*. Thus, at a festival at Andania, "the priests shall indicate a place for all sales. The city *agoranomos* [market supervisor] shall ensure that sellers sell fairly and cleanly and use the city's weights and measures. He shall not restrict the sellers as to volume of sales, or as to time, or charge them for the site" (no. 65, lines 99–107 in *Lois sacrées des cités grecques*, edited by Franciszek Sokolowski, Paris: Boccard, 1969). An Amphictyonic decree of the 2nd century BC prescribes currency equivalents to be operated by "the money changers who sit in the cities or at the *panegyreis*". Fairs, often lasting several weeks, could be interrupted by a city's periodic market. At Oenoanda, in western Asia Minor, the quadrennial festival was suspended on the sixth of the month, the regular market day.

Some fairs attracted dealers and customers for a range of merchandise: in Roman times the twice-yearly fair near Tithorea in Phocis sold "slaves, cattle of all kinds, clothes, silver, and gold" (Pausanias). Other fairs too, including the Pylaea at Delphi, were noted for slaves. Domestic animals are mentioned in several sources as a typical purchase at an annual fair.

Fairs often attracted tax-free status, *ateleia*. Some fairs were held in cities or just outside them; others traditionally took place far from any centres of population, like the mountain-top fairs still known in the Balkans and first mentioned in a work attributed to Aristotle (*On Marvellous Things Heard*, 104).

The great religious festivals were major commercial events. According to the Roman historian Livy: "The Isthmian Games had always been well attended ... because of their excellent location, which enabled the Isthmus to deal in all kinds of commodities imported over two different seas. The market there was a fair for Asia and for Greece" (*Ab urbe condita*, 33. 32. 1–3, abridged).

In the Hellenistic period the regular political gatherings of the Aetolian and the Achaean Leagues were accompanied by some kind of commercial fair or market. Under Roman rule a provincial governor's judicial progresses attracted trade: "the courts are in session every year, bringing together a numberless throng — litigants, jurymen, orators, nobles, attendants, slaves, pimps, muleteers, hucksters, whores, and craftsmen. Those who have any goods to sell can get the highest prices; nothing in the city is out of work, neither the draught animals nor the households nor the women. This contributes noticeably to prosperity", Dio observed. But the most important fairs continued to be the religious ones. We hear of the struggles of conscience that Christians faced in attending them. "A believer must not go near a fair, except in order to buy a slave (and thus save his soul) or to buy one of the necessities of life", according to the *Apostolic Constitutions* of the 4th century AD. Yet they attended; and Christian festivals slowly replaced pagan ones as the occasion for fairs. In Byzantine Greece the fair that began six days before St Demetrius's Day at Thessalonica attracted traders from Catalonia, France, and Italy. The Ottoman traveller Evliya Çelebi described the annual fair of the salt beef merchants, "infidels of Moldavia and Wallachia", held outside the walls of Constantinople for 40 days beginning from St Demetrius.

Thus fairs have a long history in Greece. Periodic markets, weekly to monthly, are less talked of. In Roman times there may have been such markets in northern Greece. Certainly they existed near the Aegean coast of Asia Minor, where inscriptions record ten-day markets around Magnesia and monthly markets elsewhere.

Cities of some size certainly supported daily markets in Classical times, as they do now. Written sources refer to various specialized markets: a cattle market at Sparta; a covered market (stoa) specializing in spices at Megalopolis.

Classical sources are most informative about the market at Athens. This occupied a considerable area, centring on the Agora. It included sections such as *eis tous ichthyas*, the fish market, and *eis toupsa*, delicatessen. There was a distinct women's market: maids could be hired there. Characters in Athenian Middle and New Comedy spent a good deal of time boasting of their success at market or complaining of the price of fish. Athens also held a monthly fair or market on the day of the new moon (*noumenia*) at which slaves and animals were sold: a slave acquired on that day might be named *Noumenios*.

In coastal cities, and in the Greek islands, periodic markets are not recorded in ancient times and are not common nowadays. Trade here has been seaborne, dependent on sea conditions, and thus unsuited to a market timetable. Instead, the practice is for a market to be set up at the harbour when ships arrive. This is seen in many places today when a ferry puts in, often signalling its arrival with a blast on the foghorn. The evidence in Classical texts is of the arrival of fishing boats being announced by a harbour bell. Early sources, beginning with Homer and Herodotus, tell stories that depend on this practice of impromptu harbour markets.

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FAMILY

Throughout recorded Greek history, the family has functioned as the central social unit. In ancient Greek there is, however, no word for "family" in today's sense, and the nearest equivalent, *oikos* or "household", refers not only to the human members of the family group but also to its property, be that house, land, tombs, slaves, or animals. This is evident as early as Homer's *Odyssey*. Crucial, therefore, to the continuation of the *oikos* was the production of legitimate heirs to whom the family property could be passed. Ancient Greek society was patriarchal, as indeed it has been until almost the present day. However, whereas in Homer the male hero stood alone at the head of his *oikos*, the *oikos* of the Archaic and Classical Greek polis, or city state, was tied closely to the social, military, civic, and religious structure of the city. While the polis provided protection from enemies to the *oikos* and its property, the *oikos* provided the polis with its citizen soldiers. The *oikos* of the Archaic and Classical periods therefore functioned on both a public and a private level. Although patriarchal, the *oikos* nevertheless laid great value on the woman's role as wife and mother. Proper and chaste behaviour was highly prized, indeed expected, by Greek society as a means of ensuring legitimate family succession and inheritance. The woman also played a central role in household management, and in the conduct of proper death ritual (preparation of the corpse and mourning) for deceased family members.

Marriage in ancient Greece, and throughout subsequent Greek history, was based on the principle of monogamy and, as again until recent times, was an arranged affair involving agreement between the bride and groom's families; this included agreement on the dowry, usually a sum of money, that the woman would bring to the marriage. At Athens during the Classical period the bridegroom was generally aged around 30 while, in order to ensure her virginal status, the bride was usually half his age. Following the wedding, the bride moved from her father's house to that of her husband. There, although sharing the family house and concerns, man and wife led distinctly different lives, for while the adult male participated daily in the public citizen life of Athens, the female remained at home, leading a private existence concerned only with domestic matters. In the case of an unsatisfactory marriage divorce was possible and could be instigated, in theory at least, by either husband or wife. Athenian law required that on divorce a woman's dowry be returned to her; this protected her from becoming destitute and made her an attractive candidate for remarriage. Procreation of children within marriage was highly important, not only to safeguard the inheritance of family property, but also to provide care for the parents in old age: indeed the nuclear family was often extended to include elderly

relatives within the household. The production of children, furthermore, ensured that the older generation would receive the appropriate death ritual and proper burial when the time came, and that the family tomb cult would be maintained. Since inheritance of family property operated through the male line, sons were especially desired; daughters, by contrast, had to be provided with a dowry. It has therefore been suggested that infant exposure, which is known to have occurred, involved more female than male children, though hard evidence for this is not forthcoming. It is also worth noting that, since all sons had an equal right to share in their father's property, the production of a number of male children could also be considered problematic. Inheritance matters were protected by complex legislation, necessary since the polis was founded on an agrarian basis; where, for example, a family lacked a male heir, a son could be adopted or, alternatively, property could pass through a daughter to her sons.

As a result of a bias in our evidence, most of what we know about the family in Classical Greece relates to the Athenian upper class. It is, therefore, interesting to compare the case of Sparta, where the state claimed a much greater degree of involvement in the family and household matters of the Spartan upper class. The underlying reason for this was the maintenance at Sparta of a professional standing army. Following marriage, which was compulsory, the groom returned to a communal military life until he was 30. Consequently, husband and wife did not live together for a number of years, resulting in Spartan women leading more public and active lives than their Athenian counterparts, and being able to exercise a degree of control over family property matters. They were, furthermore, able to own property and wealth independently. Unlike Athenians, Spartan women were not married until they were fully grown, and then generally to a man of similar age. According to Xenophon, a Spartan man could have children with the wife of another consenting Spartan male, and a young wife married to an elderly husband might also produce children with another man: these arrangements probably operated to combat cases of infertility, adoption of children also being practised. The decision to expose a child rested not with the parents, but rather with the tribal elders who had always in mind the military requirements of the Spartan community. Furthermore, the education of male children was not determined by their parents but by the state, which removed boys in their seventh year to communal barracks where they received a military, as well as traditional, education.

The Hellenistic period in Greek lands witnessed, as seen in the plays of Menander and others, a shift of focus towards the family's and individual's private affairs. This occurred as the polis structure weakened and the relationship between polis and *oikos* changed. For example, whereas in the Classical period at Athens one's membership of the polis depended on membership of an Athenian citizen family, in the Hellenistic period some states were happy to bestow citizenship on individuals descended from non-citizen parents. Furthermore, women in many states gained the ability to own and manage wealth and property in their own right, resulting in a new emphasis on their individual, as well as family, identity and worth.

During the Roman period the family underwent further evolution due, in part, to the introduction of Christianity. The most profound change revolved around the alternative roles now open to women. In the 4th century AD the emperor Constantine decreed that a woman did not have to marry, but could rather devote herself to the Church as a bride of Christ. This in turn impacted on inheritance law, for such women could now also bequeath property to the Church instead of to relatives. For the first time, priestesses aside, women could reject marriage and childbearing: either they could continue to live in their paternal home, or choose solitude, or reside within a community of women. This increase in celibacy and non-family life in the early Christian period applied equally to men as to women. Most men and women did, however, continue to marry and produce children. Marriages, as before, were arranged and contracts, recording financial agreements, were drawn up. As earlier, most girls were married by the time they reached 16, and a legal minimum of 12 years was set for brides. Now for the first time, Christian teaching established the requirement of fidelity within marriage for men as well as for women; further, in AD 326 Constantine went so far as to outlaw the ancient practice of concubinage, that is a stable sexual liaison between a married man and a woman not his wife. Many subsequent emperors, however, regarded this practice with greater tolerance. Divorce law, particularly relating to the grounds on which divorce was permitted, changed many times during the early Christian period, due perhaps in part to the influence of Christian teaching. Nevertheless, even though Christian belief stressed the indissolubility of human marriage as a reflection of the union between Christ and the Church, divorce continued to be a legal option. In the event of divorce, a woman's dowry had to be returned to her as before, while the children officially remained under their father's authority although they did not necessarily live with him. Abortion and infant exposure were now regarded with strong moral disapproval, though again the legal response was more liberal. Encouraged by the Church, some provision of care for orphans developed through private and local charity.

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See also **Children; Divorce; Dowry; Inheritance; Marriage**

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FASTS

The act of fasting in antiquity was prevalent among the Greeks and was primarily associated with rites of mourning. Its main purpose seemed to be an apotropaic one; the mourning fast was seen as a powerful medium of warding off demonic spirits that could enter the body through eating and drinking. Fasting was also considered by the ancient Greeks to be a means of expiation and purification that rendered the faster fit for union with the deities. In the festival of Thesmophoria, an Athenian cult in honour of Demeter, a one-day fast was demanded of women. In the Eleusinian mysteries fasting was imposed on the initiate in order to render them worthy of receiving the sacramental drink. Another context in which abstinence from food was required in antiquity was that of manticism. It was believed that the one who fasted was more receptive to divine revelation. Thus, preparation by austere fasting was a necessary precondition for the dream oracles through which the gods unveiled the future to their devotees and made promises to them. Yet, fasting in antiquity, apart from its ritual functions, had also therapeutic ones. The Greek philosophers often praised self-restraint for hygienic purposes and recommended fasting for the sake of philosophy. Notwithstanding such philosophical ideas, fasting in antiquity did not seem to have an ethical pertinence.

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FATE

The Greek words for fate – *moira, moros*, and *heimarmene aisa* – mean "portion". Apportionment is often said to be the work of gods, but the relation between fate and the other divine powers presented an acute problem to Greek thought. Usually a daimon is held responsible for an individual's allotted fate but often *moira* is the work of Zeus, the highest divinity of the Greek pantheon. Equally often *moira* appears to be determined independently of Zeus, and any interference with it amounts to upsetting the natural order of things (*Iliad*, 8. 70ff., 16. 435f., 22. 174f.). In this sense fate is regarded as being arbitrary and irrational, and therefore inexplicable and more powerful than the gods. A power closely similar to fate was fortune (*tyche*), and often, especially in later literature, the distinction between fate and fortune is vague. Although fortune can crucially affect somebody, originally its realm is that of chance, whereas the realm of fate is that of (godly) determination and strict necessity (cf. Aristotle *Nichomachean Ethics*, 1099b10–12). Throughout the history of Greek culture fate is seen as determining both sad and happy events with a power of universal law. Fate determines first and foremost death, and sometimes (e.g. in inscriptions) it is identical with death. The belief in the inevitability of man's allotted fate is of fundamental importance in Greek tradition and permeates Greek literature and thought from the Homeric age through the Classical and Hellenistic era up to modern times. It is striking to see that formulaic phrases and such terms as *moira* and *tyche* pervade all periods of Greek cultural history.

In the Homeric poems fate, *moira* or *aisa*, is neither a person nor a god or goddess but a fact. *Moira* appears in two forms: as a synonym for death, but also as signifying what is seemly or fit for someone, e.g. a share of honour. In its first form, *moira* is often found in formulaic phrases as the cause of death and destruction (*Iliad*, 4. 517, 19. 409–10, 23. 119). The hero frequently begs the gods for a reversal of fate (*Iliad*, 19. 287–302, 315–39) and often is able to reverse it or to worsen it by his own deeds (*Odyssey*, 9. 32f.), a situation described as *hyper moron* (beyond fate). In its second form *moira* reveals an ethical significance. One has to act and speak in accordance with one's own *moira*, taking into account social hierarchy, social and religious values, understanding of one's place and role in the social context.

Already in Hesiod fate becomes personalized in the figures of three old women spinning, the Moirai, the children of Night (*Theogony*, 219f.) or of Zeus and Themis (Righteousness) (*Theogony*, 904ff.); they were considered goddesses, able to "assign mortal men at their birth both good and ill" (*Theogony*, 217). Their functions are indicated by their names: Clotho spins the thread of life, Lachesis apportions destiny, Atropos makes final decisions. The Moirai appear in Greek iconography as early as the 6th century BC, and we know of the existence of their statues in various Greek cities, witnessing the cult of the Moirai. The power of Moira is stressed in the victory songs of Pindar and especially in tragedy. Aeschylus reserves a highly prestigious position for the Fates in the pantheon (*Eumenides*, 956f.), making even Zeus their dependant (*Prometheus Vinctus*, 511). The tragic heroes Ajax, Oedipus, Antigone, Philoctetes, and Alcestis lament their own fate and sing their own dirges. In Aeschylus' *Agamemnon*, Cassandra, endowed with the ability to prophesy, knows and laments her own fate and Agamemnon's.

The notion of *moira* plays a major role in funerary inscriptions and in the tradition of the literary epigram as well as in the magical papyri. A number of different formulae, many of them Homeric, are employed in funerary inscriptions to describe the work of Moira. Sometimes the deceased or the mourner directly addresses and reproaches Moira as the agent of their death. In funerary epigrams sentiments of grief are expressed for the inevitable action of Moira, especially when concerning premature death. From the 4th century Fortune appears to supersede Moira, especially in some genres, such as comedy. The role of Moira and Fortune is highlighted in the stories of love and adventure of the Hellenistic and late antique novels. Fortune plays an active role in these novels as a personified agent, and

dramatic tension is created by the innumerable reversals of fortune against which the heroes and heroines often protest.

The problem of fate appears from very early on in Greek philosophy. Parmenides maintained that fate determines that nothing exists but the being (fr. 8. 36–38). The problem of fate is first seriouly addressed by the Stoics. For them the way the world evolves is determined by a divine plan which includes our choices and decisions. Yet the divine plan is contingent on our own choices. Something can be dependent on us and still fated (but not necessitated) since a person's soul, together with external circumstances, is part of the network of fate. The human agent has power only over his or her own impressions. One may choose freely among them but whether one succeeds in realizing them is a matter of divine providence. Thus one is free if one does not desire anything beyond one's power (Epictetus, *Dissertationes*, 4. 7. 9). For the Stoics one exercises one's free will only when one gives assent to the right impression, but to act rightly or virtuously is not in one's power. The Stoic notion of fate was highly influential but was also polemicized by the Epicureans who denied the existence of a godly imposed fate (*D.L.X.*, 133–134). They argued that to the extent that men are rational their actions are voluntary, in the sense that they are under rational control. Later Alexander of Aphrodisias in his *On Fate* (*c.* AD 200), which argues that the Stoic view seriously restricts freedom.

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See also **Death**

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FEDERAL STATES

The federal state was a major form of organization of the ancient Greek state. Its main characteristic was the union of various city states or tribal communities to form a single entity, which exercised certain political powers on behalf of its member states. By definition, the constituent parts of federal states enjoyed a specific degree of autonomy, including local government and the use of local citizenship, while the federal authorities were genuinely concerned with foreign policy. Political participation of the member states was achieved by the means of equal or proportional representation. Federal states were always founded on the basis of earlier Greek tribes – for instance the Boeotians, Arcadians, Achaeans (see below) – as a consequence of which tribal cults and ceremonies continued to play a prominent role in federal affairs. There is no single term to denote a federal state in ancient Greek. In the 5th and 4th centuries BC the term *koinon* is predominant, while in the Hellenistic period e*thnos* and *sympoliteia* are found.

One of the earliest – and one of the most important – federal states was the Boeotian League. Its chief officials, the Boeotarchs, appear to have been established by 519 BC, when Boeotian troops tried to incorporate Plataea into the Theban-led confederacy. Due to Theban Medism (support for Persia) in 480, the federal state was weakened after the Persian Wars. There was no official dissolution, but its political influence seems to have perished, and Boeotia came under Athenian domination in 457. A new confederacy was founded after the liberation from Athens a decade later, its polity being the best-attested form of representative government in antiquity. All Boeotia was divided into nine (in 427 extended to 11) electorate units, each of which provided one Boeotarch, 60 councillors, 1000 hoplites, 100 horsemen, and a certain number of jurors to the federal government. Active citizenship was confined to those who served in the federal troops (eligibility established by a so-called hoplite census). The constituencies were shared among the poleis according to their population. Both Orchomenus and Thebes were permitted two districts in 447, while smaller cities administered one or sometimes only a third of a district. In 386 the Spartans dissolved the federation on the grounds of the King's Peace. The league was soon reestablished in the aftermath of the Theban revolution in 379. Its main political institution was the board of Boeotarchs, now reduced to seven. The representative councils were not revived. Instead, decision making rested with the primary democratic assembly in Thebes, which was open to all Boeotian citizens. Theban leadership soon became overwhelming. After the destruction of several poleis (most notably Orchomenus in 364), Boeotia was dominated by the Thebans alone. The sources tend to speak of the league in terms of a Theban *synteleia* (subordinate group), which indicates an amalgamation of polis structures and federal institutions. The confederacy was maintained in the Hellenistic age (despite the destruction of Thebes by Alexander in 335 BC), though its constitutional outline profoundly changed. At the head of government stood a board of seven (sometimes eight) Boeotarchs, who now were confined to one representative from any specific city. Next to them, the office of a military *strategos* (general) and a federal *synedrion* (council) were introduced. Another important improvement was the practice of taking the vote in the federal *synedrion* by cities. Effectively, no single polis seems to have dominated the federation until it was dissolved by Rome in 146 BC. In later periods the Boeotian *koinon* obtained cultural functions, such as hosting religious festivals.

In the north the Thessalian League was the leading federal state. It seems to have been established by the beginning of 5th century BC, emerging from the feudal kingdom of Thessaly. Its proper territory was divided into four tetrads (Thessaliotis, Phthiotis, Pelasgiotis, Hestiaeotis), each headed by a tetrarch. Initially, the office was monopolized by local aristocratic families (for instance the Aleuads of Larissa), who owned the vast majority of the Thessalian *kleroi* (land lots). Of these, each *kleros* was required to furnish 40 horsemen and 80 hoplites to the federal troops. With the growing importance of the *koinon*, the tetrarchs were replaced by four annual polemarchs. They were elected by the federal primary assembly of all free Thessalians. Like the polemarchs, the *tagos* (the head of state), was elective. His office embodied the supreme sovereignty of the league. However, the sources attest certain *atageiai*, which implies that there were substantial periods without a *tagos*. In the 4th century several tyrants of Pherae, most prominently Jason, sought to establish a lasting *tageia* over Thessaly. In resistance to their attempts, the league appealed to Philip II of Macedon, who was elected as federal archon and defeated the Pheraeans in a pitched battle in 352. Under his archonship the Thessalian League soon became a Macedonian protectorate. The tetrarchy was reintroduced, its officials being appointed by Philip. Further, he initiated a system of "decarchies" (boards of ten) in each of the cities, to anchor Macedonian interests. The next major reform was enforced by Flamininus in 194. The league, now detached from Macedon, obtained representative government, including a federal *synedrion* of city delegates. Apart from judicial and deliberative activities, its main objective was the annual election of the head of government, the *strategos*. Unlike most confederacies, this polity was officially maintained throughout the Roman empire, affiliated to the province of Achaea.

The Arcadian League presents a much shorter history. Founded after the Battle of Leuctra in 371, it was brought about by Mantinaean and Tegean democrats, who sought to unite their poleis against Sparta. To prevent rivalries between these prominent member cities, Megalopolis was founded as a new federal capital. The central political body was the primary assembly, the *myrioi* ("ten thousand" – that is, "all") in Megalopolis. This assembly was attended to a large extent by members of the federal army, the *eparitoi*, a mercenary force paid by the confederacy. At the head of the troops stood the *strategos*, the federal commander-in-chief. The most interesting institution was the federal *boule* (council) of 50 *damiourgoi* (councillors), who represented the cities approximately in proportion to their population. Despite this sophisticated combination of direct and representative bodies, the Arcadian League was soon crushed by internal civil strife and disintegrated in 364/63.

More successful was the Aetolian League, which – as well as its great opponent, the Achaean League – played a major role in the politics of Hellenistic Greece. Its origins can be traced back to the late 5th century BC, when Aetolia initially established some sort of federal government. The *koinon* had both tribal and city members. Foreign policy was in the hands of the federal state. The confederacy held two annual meetings (*Thermika* and *Panaitolika*), to determine the league's policy and to elect military commanders. As early as 327, a federal *boule* is attested, and it is clear that this council served as the administrative body. This constitutional framework was the basis for further development of the federal state in the 3rd century, when its territory expanded considerably. While maintaining a remarkable degree of local autonomy, new members (such as the Lokrian district) were conceded an equivalent status to the genuine Aetolian tribes and cities. More distant members were granted the status of *isopoliteia* (state with reciprocal civil rights). Consequently, the federal council soon grew from its original extent to a size of possibly up to 1000 representatives, For practical reasons, a certain number of these served as executive councillors (*apokletoi*). The chief magistrates were the *strategos* and the *hipparchos* (cavalry commander), both elected by the federal primary assembly in Thermon. In the 2nd century BC the Aetolian league increasingly came under Roman power. After the reduction of its territory to Aetolia proper in 167, the federal state lost its sovereignty and was finally incorporated into the province of Achaea under the principate.

The federal constitution of Achaea goes back to the 5th century BC. The early confederacy appears to have been divided into 12 *merea* (units), each of which sent a contingent of delegates to the federal board of *damiourgoi* and to the oligarchic assembly at Aigion. By 389 the league had adopted a system of double citizenship: in that year the *koinon* incorporated Naupactus on the north coast of the Corinthian gulf by granting federal citizenship to its inhabitants. After 324 the league seems to have been broken up by Demetrius, but it was revived in 281/80 on the initiative of four Achaean cities (Pharae, Dyme, Tritaea, Patrae). The newly established federal state soon rose to great prominence. From 251, when Sicyon joined, the league gradually expanded and finally embraced the whole of the Peloponnese. Its main political body was the representative council, the *synodos*, assembling at Aigion. Additionally, there existed a federal primary assembly, the *synkletos*, which was concerned with extraordinary business. In both the *synodoi* and the *synkletoi*, votes were taken by individual cities. The league's executive rested with the annual board of ten *damiourgoi* and two *strategoi* (after 255 BC reduced to one), Election took place in the *archairesiai* (election meetings) of the Achaean citizens. With Roman support, the federal state became the most important single power in mainland Greece in the 2nd century BC. However, economic crisis and class struggle soon led to strained relations and to open resistance against Rome. In 146 the Achaean federal state was dissolved by Lucius Mummius. Like the late Boeotian *koinon*, it continued to serve as a community for cultural and religious ceremonies, until the province of Achaea was established in 27 BC.

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See also **Boeotia; Orchomenus; Thebes**

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FESTIVALS

In a society that did not have the modern system of weeks – and accordingly, weekends – regularly recurring festivals offered opportunities not only for repose and entertainment, but also for maintaining contact with one's fellow citizens, and, on a more practical level, for eating meat. It is estimated that more than 60 days out of the Athenian year of 360 days were given over to festivals, when normal business – at least of an official nature – was suspended (the equivalent of our bank holidays). This compares well enough to modern western practice.

The Greek word for festival was *heorte*, which was used for most communal celebrations with a religious component. This would involve a sacrifice, conducted usually in the deity's sanctuary. This meant that the sacrificial beast had to be brought to the place of sacrifice, a requirement that easily developed into a procession (*pompe*), sometimes very elaborate, in which the beast was accompanied by the priest, the butcher, other cult and public officials, and the public. The Heraia of Argos, for example, began with a procession that led from the city across the Argive plain to the Heraion, which served to demonstrate to the people of the Argolid, and remind them of the fact, that the Argolid belonged to Argos.

The essential feature of any festival was the actual gathering of people to participate, and, depending on the nature of the celebration, to watch. The supposed birthdays of gods and heroes were marked by celebrations, monthly and/or annual. Many festivals marked stages in the agricultural cycle. Such was the basis of the various Dionysiac rites celebrated during the late winter and early spring, to signal – and in some cases to stimulate – the reawakening of plant and animal life after the rigours of winter: Lenaia, Dionysia, Thyia, Agrionia. Similarly, the successful growing of grain was the goal of a whole series of rituals focused on Demeter and Kore Persephone, the most notorious of which were the Thesmophoria, a rite restricted to women.

There were other rites in which participation was restricted. These included festivals devoted either wholly or in part to the initiation of new members into a relatively closed community. Mystery rites – *teletai* – are one example of this kind of festival. The best known were those at Eleusis and Samothrace, which admitted initiates regardless of citizenship. Then there were the various rites of passage from one age group to another in the course of progression from childhood to full citizenship, which were part of larger local festivals. Thus at Athens one day of the Apatouria was given over to the admission of ephebes to the status of manhood, while something similar lies behind the confused rituals of the Spartan *agoge* (education system).

Festivals might range from relatively simple commemorations to full-scale celebrations, with formal procession, sacrifice, competitions (*agones*), and an attendant market and fair (*agora*). The inscription that sets out the arrangements for the festival connected with the celebration of the mysteries at Andania in Messenia is a mine of information. It dates from 92 BC, when one Mnasistratos, to whose family the operation of the mysteries had been entrusted in the past, turned over the operation of the cult to the state. We learn that, in addition to the initiatory ceremonies proper, there were extensive public celebrations. The sanctuary was out in the countryside, and arrangements had to be made to house, feed, water, bathe, and police the multitude who came. All we are really told about the mysteries is that new initiates were sworn in by former initiates – male and female – and that all of them had to dress in specific kinds of clothing. The "open" festival included a procession in which all the officiants as well as the priests and priestesses of other sanctuaries in the region took part, and in which sacrificial beasts were escorted. There was a sacred feast from the meat of the sacrificed animals, and performances of music and dancing. Close attention is paid to the regulations for the market, which was clearly an important feature of the festival. The whole – festival, mysteries, market – was open to men, women, children, free or servile (indeed, an area was set aside for slaves to seek refuge).

The term *panegyris* (an Aeolic form meaning literally "gathering of all") is reserved for festivals with a wider than purely local appeal. It appears in a fragment attributed (possibly falsely) to Archilochus, which refers to a *panegyris* of Demeter and Kore (fr. 322 West). An early description of such a festival – although it does not employ the actual word – is the gathering of Ionians with their children and wives on Delos, where, according to the author of the *Homeric Hymn to Apollo*, they regularly delighted the heart of the god with competitions in boxing, dancing, and song. The festivities also included hymns sung by the girls of Delos in honour of Apollo and Artemis and their mother Leto.

From the other end of antiquity we have a long inscription from Oenoanda in Lycia, dating from the reign of Hadrian, which records the foundation of a *panegyris* by a local tycoon (Caius Julius Demosthenes). The document gives a detailed account of the programme of events of a musical and theatrical (thymelic) agon. The festival was spread over 22 days beginning on the first day of the month (in high summer) with a competition for trumpeters and heralds (essential features of any festival: the victorious trumpeter would summon the multitude, the herald would announce the programme and dispense other information). The second to fourth days were reserved for public business: meetings of the council and assembly of the polis. The first competitions proper (the sequence and range of competitions are more or less identical in surviving victors' lists from all over the Greek-speaking world) were held on the fifth, when composers of prose encomia (probably in honour of members of the imperial family and important local people) competed. The sixth day was given over to the market. On the seventh day epic poets competed, on the eighth and ninth aulos players with chorus, and on the tenth and eleventh comic poets. On the twelfth day of the month there was a sacrifice to Apollo Patroos (patron god of the polis), followed on the thirteenth and fourteenth by the competitions of tragic poets, and on the fifteenth by a second sacrifice to Apollo Patroos. Singers with cithara accompaniment competed on the sixteenth and seventeenth days, and the agon proper ended on the eighteenth with a final open competition for all (perhaps all the victors in preceding competitions). For all these, prizes were awarded, in most cases to those who finished second as well as first. From the nineteenth to the twenty-first, hired mimes, singers, and other entertainers performed, but not in competition, and finally on the twenty-second day there were gymnastic events open to citizens (the inclusion of a few athletic competitions in musical festivals – and vice versa – is not unusual under the empire). During this *panegyris*, which took place in the theatre, the agonothete (president of the competition), priests, functionaries, civic dignitaries, and representatives from surrounding towns and villages processed through the theatre, and each individual group sacrificed according to a fixed schedule. There were penalties for non-participation.

The earliest competitive festivals (*agones*) we read of are the funeral games in honour of Amphidamas of Chalcis, presumably a real person (Hesiod, *Works and Days*, 650–59), and the fictional games for Amarynteus of Epeia (*Iliad*, 23. 629–45) and Patroclus, the last vividly described in *Iliad*, 23. 297–897. Such games would naturally have been casual occasions, but they provided the model for games celebrated annually in honour of heroes. The Herakleia were celebrated at about the time of the winter solstice, when the people of Boeotia performed public rites in honour of those who had died in the service of the state.

The best-known ancient Greek festivals were the four great Panhellenic gatherings at Olympia, Delphi, the sanctuary of Poseidon at the Isthmus of Corinth, and the sanctuary of Zeus at Nemea. Each of these sanctuaries was well placed to be a centre for an interstate festival: Olympia was at the confluence of the rivers Cladeus and Alpheus, and, as its name reveals, it was at the southern end of a land route used by transhumant hersdmen, linking the Peloponnese with the north and north-east of the Greek mainland, where Mount Olympus looms. Similarly, Delphi is at the southern end of an overland corridor joining the north to the Gulf of Corinth. Both Olympia and Delphi were also easily accessible by sea to the Greek settlements in the west, a fact that greatly accelerated the pace and extent of their growth from local to interstate/Panhellenic meeting place. Isthmia is at the southern end of the portage across the Isthmus, which linked the gulf of Corinth and the Saronic gulf. Nemea, although at first glance of lesser importance, in fact lies astride a major north–south land route in the Peloponnese.

All of these festivals – Olympia, Pythia, Isthmia, Nemea – began as purely local operations. The first to attract a wider clientele was Olympia, where the list of victors in the stadium race begins at 776 BC, a date that more or less matches the archaeological record. The Olympian games probably began relatively simply, with the foot race, other competitions being added as time passed. During its early years the Argives and Spartans were major patrons; in the early Classical period much interest was shown by rich and powerful Hellenes from Sicily and southern Italy. The Pythian games traditionally began with a single competition, the performance of a hymn in honour of Apollo. By early in the 6th century BC (traditionally after the so-called First Sacred War), the Pythia, which had originally been celebrated at intervals of eight years, had become, like the Olympic games, pentaeteric, that is, they were celebrated every four years (every five by the inclusive reckoning used in antiquity). Furthermore, athletic contests were added to the musical ones (the Olympic games, on the other hand, remained strictly athletic). Delphi too attracted the patronage of Sicilians and Italians. At about the same time – *c.*582 BC – the Isthmian games became Panhellenic, to be followed a few years later (*c.*573 BC) by the Nemean games. Both the Isthmian and the Nemean games were trieteric, celebrated every second year. The Isthmia were originally athletic only, with musical competitions being attested from the 3rd century BC. The Nemean games included both musical and athletic contests. The games of the cycle – the *periodos* – were preceded and followed by a Sacred Truce, so that competitors and visitors might have safe passage to and fro (not so much a "truce" as we know it, rather an agreement not to seize the persons or property of people travelling to and from the site of the festival: in later antiquity these arrangements were not limited to the Periodic games). Olympic and Pythian games were held at the same time of year (late August/early September) with a two-year interval between them; the Isthmian games were held in April/May of every Olympian/Pythian year, and the Nemean games in July of every off-year, giving, for example, the following sequence for an Olympiad: 488 BC Olympia and Isthmia; 487 BC Nemea; 486 BC Pythia and Isthmia; 485 BC Nemea; 484 BC Olympia and Isthmia.

These contests were what was later called *stephanitai*, that is, the prize for victory was not monetary, but in the form of a wreath (*stephanos*), of wild olive for the Olympia, bay leaves for the Pythia, pine, later dry celery for the Isthmia, and fresh celery for the Nemea. Victors in these games could count on receiving more material rewards at home, in recompense for the glory they brought their communities: at Athens, for example, victors at the Olympic games (at least those well enough off to have entered a horse or chariot) were fed at public expense in the Prytaneum. The glory of such victories is also reflected in the epinician odes commissioned from such poets as Simonides, Bacchylides, and Pindar.

The polis of Elis was responsible for the Olympic games. The Pythian games, like the Delphic oracle, were governed by a genuine interstate body, the Delphic amphictyony. The Nemean games seem to have begun as a festival shared between the towns of Cleonae and Phlious, but eventually came under the control of Argos. The Isthmian games were Corinthian, except during the period 156–44 BC when Corinth lay in ruins and the direction of the games was assumed by Argos. (Argos became one of the two headquarters – the other being Thebes – of the guild of actors and musicians called the "Isthmian and Nemean Artists of Dionysus": these Hellenistic guilds – the other major associations were the Athenian guild and the guild of artists of Ionia and the Hellespont – ensured the participation of professional competitors at agons great and small.) Despite the fact that three out of four of these festivals were run by a single state, all four reached and held the status of interstate, Panhellenic festival, probably because they were clearly tied to the rural sanctuary in which they were held, rather than to the state itself. By contrast, the Panathenaia of Athens, founded or expanded in the 6th century BC, which included both musical and athletic contests, and for which huge amphorae were given as prizes, never reached true Panhellenic status. This was probably because they were too closely linked with Athens: the name itself was a form of propaganda.

A significant change in the world of Greek competitive festivals came with the institution of the Soteria at Delphi, first founded to celebrate the defeat of the Gallic invasion of 279/78 BC, and in the mid-3rd century BC refounded as a pentaeteric festival of Panhellenic pretensions by the dominant Aetolian League. This started a veritable flood of new festivals, many of them pentaeteric, throughout the Hellenistic world, whose organizers sought acceptance of their new or enhanced status from the Aeolian-controlled Delphic amphictyony, as well as from any other political power that would grant it. The main attraction of these games for competitors was the prizes, usually in the form of wreaths of gold or silver. The holding of such a festival and its acceptance became an important feature of international relations during the Hellenistic period, and it is probably true to say that these festivals were one of the most powerful instruments in fostering and maintaining Hellenic identity in late antiquity.

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See also **Fairs and Markets; Fasts; Games and Sports; Sacrifice**

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FINANCE

Finance is the process by which individuals or groups collect and expend funds. This article focuses on governmental revenue and expenditure.

The earliest preserved financial documents from Greece are records of inventories and payments dating to the Mycenaean period (*c.*1600–1100 BC). Mycenaean Greece was organized into kingdoms staffed by officials who collected mandatory contributions from the king's subjects. Payments were made "in kind", i.e. in the form of produce such as grain or objects such as axes. Some of this revenue was used to support the royal household and the military. The remainder was redistributed to the kingdom's subjects in proportion to each individual's position in the political hierarchy.

After the collapse of Mycenaean civilization, both government and finance were greatly simplified. A king with strictly limited powers drew revenue from a piece of public land called a *temenos*, the produce of which was given over to him as long as he held power. Significant gains were also won through war and piracy. The king's financial responsibilities included funding military and religious activities and the entertainment of local nobles and foreign visitors.

Around 800 BC more complex state forms emerged. A sense of the different kinds of financial arrangements which were found in Greece thereafter can be had by looking at three examples: Sparta, Athens under Pisistratus, and Athens under democratic rule.

The Spartan state was controlled by a military elite, the members of which neither worked nor paid taxes. They were supported by serfs called helots who tilled the estates of the elite and who were required to provide specified amounts of various foods to their master's household. No other regular taxes existed except for small gifts made to the kings. This remarkable absence of taxation was possible because governmental apparatus was minimal. The lack of revenue sources was, however, a problem in wartime when military expenses had to be met, sometimes only with difficulty, from the contributions of Sparta's allies, from the sale of booty, and from voluntary offerings by Spartan citizens.

Athens under Pisistratus presents a very different picture. Pisistratus became sole ruler (tyrant) of Athens in 546 BC. The primary source of revenue for his government was a tax on agricultural produce. State expenditures included the maintenance of police and military forces, the completion of a substantial building programme, and the celebration of religious ceremonies. A key feature of this financial system was the imposition of a direct tax on all inhabitants of Athens. (Direct taxes are levied on an individual's income or personal wealth. Indirect taxes are levied on services or transactions. Income taxes are an example of the former, sales taxes of the latter.) The obligation to pay direct taxes was seen as a form of subservience and thus as a sign of despotic rule.

The democratic government which came to power in Athens in 514 BC kept elaborate records, many of which are preserved.

These, along with contemporary literary sources, provide unusually detailed evidence about financial practices.

The revenue of the Athenian state in the mid-5th century BC came from five sources: rents on state property, indirect taxes, direct taxes, tribute, and liturgies (see table). While indirect taxes were paid by all Athenians, direct taxes were normally paid only by resident aliens, each of whom was required to pay a yearly fee (a "head tax"). The Athenian state also derived revenue from the tribute it extracted from its allies. (Liturgies are discussed below.)

Revenue Source	*Percentage of Revenue Supplied*
Rents on State Property	15
Indirect Taxes	15
Direct Taxes	5
Tribute	50
Liturgies	15

The revenues of the Athenian state were expended as follows. About 35 per cent of the total was used to support the military. Public works, particularly the massive building project which produced the Parthenon, consumed another 20 per cent. The internal administration of Athens involved the paid participation of thousands of citizens and thus resulted in heavy expenses for jurors (12 per cent) and for various other officials (7 per cent). Expenditures for religious ceremonies (10 per cent), for the support of orphans and invalids, and for the police force (about 6 per cent each) made up most of the rest.

In wartime, expenses increased significantly; this frequently put Athens in a difficult financial position, and upon occasion an emergency property tax (*eisphora*) was levied on all residents including citizens.

The administrative machinery which organized Athenian finance was quite simple. Governmental budgeting – projecting and adjusting total future revenue and expenses – did not make its appearance in Greece until the 19th century AD.

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See also **Taxation**

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FISHING

The Mediterranean is an enclosed sea, consisting of deep basins with poor water circulation and therefore limited distribution of nutrients. Annual evaporation rates exceed replacement from rivers and as a consequence the sea is saltier than waters of the north Atlantic. Sea temperatures are lower and the important commercial fish stocks of the Atlantic, such as cod and herring, are absent. In general, the Mediterranean is lacking in fertility and, although evidence is not conclusive, this appears always to have been the case despite changes to sea level in the Pleistocene–Holocene transition.

Although the seas of the Aegean and eastern Mediterranean are less fertile than the waters of the north Atlantic, they support a wide range of species. Over 1500 species of marine invertebrate are reported for the Mediterranean as a whole, and around 100 of these are edible. In Greek waters 447 species of marine fish have been recorded, comprising important pelagic species such as tuna, mackerel, and anchovies as well as a great variety of demersal species including the important families of Serranidae (grouper), Sparidae (sea bream), Labridae (wrasses), Mugilidae (mullet), and Scorpaenidae (scorpion fish). Numerous species of edible shark and ray exist, and turtles and marine mammals are also present. The variety of species means that fishermen are able to engage in diversified fishing and are not dependent on single species, whose stock levels may fluctuate annually and interannually.

A variety of fishing methods are recorded for antiquity, and archaeological evidence suggests that many of these methods go back into prehistory. Many of these fishing methods are still in use today. In the 2nd century AD the writer Oppian described four methods, namely the use of hooks, nets, weels (wicker basket traps), and tridents. Line fishing using hooks can employ a stationary line (as with the set line, the *paragathi*), a trolling line pulled behind a moving boat, or involve the use of a rod. Nets include simple nets (gill nets, cast nets, drag nets, and seine nets) or complex nets such as the three-walled *manomena*, a trammel net. The madrague (or *tratai*) is a specialized fishing method employed for catching tuna. A lookout alerts fishing boats to the arrival of a shoal of tuna and the fish are chased through a series of nets placed parallel to the coast until they reach a death chamber where they are gaffed. In the ensuing melee, many fish are killed by others in a frenzy. Aeschylus compared the slaughter of the Persians at Salamis to this fishing method. Weels, baskets, and pots are used to catch a range of fish and shellfish. Tridents were often employed at night with lights.

The earliest evidence for marine exploitation occurs at the littoral zone. Eels are generally caught by trapping and these and demersal and littoral species dominate the earliest evidence during the Final Palaeolithic and Early Mesolithic. Evidence for the use of boats corresponds with the appearance of tuna remains, together with obsidian from the island of Melos, in Upper Mesolithic levels at Franchthi Cave in the southern Argolid. The two key sites for the prehistoric period are Franchthi Cave and the Cave of Cyclops on the island of Youra in the north Aegean. Youra has produced the largest known collection of bone fish hooks and fish gorges for any period in Greece. At both sites the proportion of fish remains in

the total food refuse declines dramatically at the beginning of the Neolithic.

Iconography during the Bronze Age is an important source of information about fishing and marine exploitation. The Minoans and the residents of Akrotiri (Thera, modern Santorini) were fond of marine imagery and the fresco of the fisherboys at Akrotiri shows a mixed catch of dolphin fish (*Coryphaena hippurus*) and mackerel (*Scomber sp.*). The extraction of purple dye from the shellfish *Murex brandaris* occurs from Middle Minoan times. The set line or *paragathi* is also attested from Middle Minoan times, and lead weights that could well have been used for trammel nets date from the late Bronze Age.

Homer's heroes did not eat fish, but whether this reflects a common practice or is simply an indication of the social status attached to various foods is unclear. The poems do, however, make mention of spears, nets, rods, and handlines which suggests that fishing was widely practised. The low status of fishermen is apparent in later periods, as they are commonly the object of jokes in comic theatre.

Classical Greece, or more particularly Athens in the 5th century BC, imported a broad range of foodstuffs, and expensive fish were part of the conspicuous consumption of the urban wealthy elite. Greek food consisted of staples like bread (*sitos*), drink notably wine (*poton*), and *opson*, the relish that accompanied these staples. The term *opson* survives in modern Greek as the word for fish, *to psari*.

Some of the most important "relishes" that accompanied food were fermented fish products such as *tarikos*, known to the Romans as *garum* or *salsamentum*. The earliest mention of salted fish is in the Hippocratic Corpus and the first mention of fish sauce is in Dioscurides, but Greeks no doubt ate salted and preserved fish well before these literary references. A 5th-century BC house at Corinth produced Punic amphorae, the sherds of which have preserved fish attached. Various species of fish and shellfish could be used in the process and the result is comparable with the modern Vietnamese fish sauce, *nuocmam*. No fish-processing centres have yet been excavated in Greece, although salting factories are known for the Roman period. Roman fish tanks are found in eastern Crete at Siteia, Chersonisos, and Mochlos. Such facilities could have been used to breed or store fish, but at none of these sites is there evidence for associated salting facilities.

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See also **Food and Drink**

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FLORINA

City in western Macedonia

According to the 14th-century memoirs of John Kantakouzenos, while Byzantium was facing a Serbian invasion in Macedonia in 1334, a notable from Constantinople, Sphrantzes Palaiologos, was appointed to the command of a province consisting of four small towns in western Macedonia, Chlerenon, Soskos, Staridola, and Debre. The first-mentioned among them, Chlerenon, can be safely identified with Florina, being the original Slavic name of the town, which is still known as Lerin in Slavonic languages. Florina is the later, Ottoman, name of the town which was also adopted by the Greeks.

The mention of Florina in the text of Kantakouzenos is the earliest record of the town which had remained in obscurity until then. The town's insignificance is also reflected by the absence of any high ecclesiastical authority there. Florina remained under the jurisdiction of the bishop of Prespa until the late 19th century when it was transferred to the diocese of Moglena. However, efforts were made by the Bulgarian exarchate to establish a metropolitan see of its own in Florina in the late 19th century.

The town is described for the first time in an Ottoman fiscal register of 1481. According to the data it provides, Florina had a population of approximately 1201 people (981 Christian, 220 Muslim). The Christian element of Florina's population was of a mainly Slavic ethnic character, as suggested by the personal names recorded. The same register points to an economy based on agriculture, as most of the town's fiscal revenue was of an agrarian provenance. In later centuries the town retained the agrarian basis of its economy, with commerce and handicrafts catering for local demands. Yet, the proximity of Florina to the principal land route which followed the course of the Roman Via Egnatia facilitated its contact with adjacent and more distant regions. Florina had grown bigger by the second half of the 17th century when it is described by Evliya Çelebi as having 1500 houses (which corresponds to a population of about 7500 people), 14 mosques, three religious colleges (madrasas), and one dervish convent (*teke*).

The Christian population of Florina and the surrounding area was primarily Slavic, though the Vlachs had a considerable presence, and other ethnic groups, such as Greeks and Armenians, were no doubt represented during the Middle Ages and the centuries of Ottoman rule. The people of Florina were receptive to Greek cultural influences, first from the Greek-dominated Orthodox Church, then through the establishment of Greek schools during the 19th century. The intensification of Greek cultural influence coincided with the age of nation-building ideas. As a result, the adoption of Greek cultural features, including the language, first bilingually then exclusively, was accompanied by the building of a Greek national identity

among people of different ethnic backgrounds, including a percentage of the Slavs, in the district of Florina. Bulgarian reaction in the late 19th century led to strong rivalry in the areas of religion and education as the Bulgarians established their own institutions in order to counteract Greek progress in shaping local national sentiment. This Graeco-Bulgarian confrontation culminated in fighting which was particularly intense in the district of Florina between 1904 and 1908.

After Florina was incorporated into Greece in 1912, the Hellenization of the local Slavs progressed rapidly as there was no alternative for educational and ecclesiastical purposes, while the arrival of Greek settlers including refugees from Turkey enforced the already existing Greek or Hellenized element. Nevertheless, a considerable proportion of the Slavic population strongly resisted the processes of assimilation and made the district of Florina one of the very few regions in Greek Macedonia where the presence of a minority created serious problems (31 per cent of the population in the district of Florina are recorded as Slavic speakers in the census of 1928). The Slavic communities of the district of Florina finally disappeared after the Greek Civil War (1946–49), as most of them sided with the leftist Democratic Army of Greece and had to flee the country facing defeat. The rest were completely assimilated to the virtual extinction of Slavic ethnicity in this region of Macedonia where it had been particularly strong. The recent history of Florina demonstrates the effectiveness and success of Greek policies and processes of assimilation.

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FOOD AND DRINK

The food and drink of Greece show a surprising degree of continuity from classical times, and even before, down to the present day.

Prehistoric evidence comes from archaeology and also from the Greek language. The Greek names for many plant foods, and for nearly all fish, cannot be paralleled in other Indo-European languages, suggesting that many of the foodstuffs of Greece were unfamiliar to the speakers of prehistoric Greek before their arrival in the Aegean region. But for cereals (emmer, barley, perhaps millet) and for some important food animals (oxen, swine, sheep, goats, ducks, and geese) the names used in Greek are of Indo-European origin, which indicates that the earliest Greek speakers of the region had brought a knowledge of these species with them.

Archaeologists find evidence of the use of deer and wild goats, of tunny, of shellfish and snails, and of a range of fruits and other plants at sites in Greece from about 10,000 BC and even before. Emmer and einkorn (primitive forms of wheat), barley, oxen, swine, sheep, and goats were farmed in Greece and Crete by 6000 BC. In subsequent millennia grapes, accumulates for a range of seafood. By 2000 BC wine and cheese were certainly familiar. Probably olive oil was already well known: the extent of olive cultivation in prehistoric times has aroused controversy, but quantities of oil are recorded on Linear B tablets. Coriander, dill, cumin, fennel, mustard, and parsley are among the early aromatics of Greece. The world's oldest-known man-made beehive comes from Akrotiri (Thera, modern Santorini), demonstrating that domesticated bees were kept there before the volcanic eruption that destroyed the town, and thus that honey was valued as a food.

For Classical and later Greece, literature becomes the main source. Although in the *Iliad* and *Odyssey* there is no evidence of any elaborate methods of cookery, by the 5th century BC a highly developed cuisine was practised in many Greek cities – partly under overseas influence. Some recipes were said to be Lydian (from the rich and civilized kingdom in western Asia Minor) or Ionian (from the Greek settlements in and near Lydia). Others derived from the prosperous Greek colonies in Sicily; Sicilian cooks were famous. Growers of fruit and vegetables developed varieties that varied in quality, time of ripening, and soil and water requirements. Athens, rapidly expanding, depended on imports even for staple foods such as wheat.

The staple foods of Classical Greeks, when leading a settled life, were wheat and barley. At home these were baked into loaves in clay ovens or under ashes; travellers and soldiers probably more often boiled them as gruel or porridge. Poor people supplemented this diet with little more than fruit, mushrooms, and vegetables gathered from the wild. Many could afford to add olive oil and flavourings such as cheese, onion, garlic, and salt fish (e.g. anchovy, goby). On the tables of the wealthy the variety of fish and meat dishes and the many savoury and sweet confections were still typically preceded by wheat and barley loaves.

Much cooking was probably done out of doors, and took the form of grilling, roasting, frying or boiling over a fire, or baking in hot ashes; *klibanoi*, baking cloches or clay ovens, were used for bread. Cooks depicted in Athenian comedy of the 4th century BC happily list the methods they preferred. At least one cookery book, by Mithaecus, had been written; others would follow. The humorous gastronomic poem of Archestratus, now known only in fragments, shows that travel and trade were encouraging the appreciation of local produce and regional cuisine.

Comedy cooks sometimes list the range of ingredients they would expect to have at hand. These lists include thyme, oregano, fennel, dill, sage, rue, parsley, fig leaf, coriander leaf, and other herbs; raisins, olives, capers, and sumach; onions, garlic, and leek; cumin and sesame seed; almonds; olive oil, vinegar, grape juice; eggs, pickled fish, salt. Favourite kinds of wine, oil, and luxury foodstuffs criss-crossed the Aegean, but the only commonly used ingredients that had to come from far away were *silphion*, the now extinct aromatic from Cyrene; dates from the Levant; *horaion* and other forms of salted tunny, and *garos* (fermented fish sauce), both of which came from the Black Sea ports, as did much of the wheat that Greece imported.

Greeks commonly ate two meals a day, a lighter *ariston* at the end of the morning and a heavier *deipnon* in the early evening.

Among the leisured classes, dinner might lead into a *potos* or *symposion* (drinking party). In Sparta and on Crete the typical meal in Classical times was a communal one, served in a public hall. In Athens and other cities private dinners were often held, at which guests reclined to eat, an eastern fashion. At the beginning of the meal a small table, freshly scrubbed, was placed in front of each dinner or of each couch. Food from the serving dishes might be taken directly on to the table, or on to bread, and eaten with the fingers.

An elaborate dinner of the 4th century BC began with the serving of loaves in baskets. A relatively light first course consisted of appetizing relishes, *paropsides*, to eat with the bread. A selection of more generous fish, poultry, and meat dishes formed the main course. Fresh meat was spit-roasted or grilled, and required to be slaughtered and prepared by a professional *mageiros* (butcher-cook) with appropriate religious ritual. Dessert was called *deuterai trapezai* (second tables) because clean tables were brought in at this point. It consisted of cakes and sweetmeats, cheese, nuts, fresh and dried fruit. Between main course and dessert, wine was first served: it was normally mixed with water. Wines of Chios, Lesbos, Thasos, and the coast of Macedonia had lasting popularity. "Water is best", said Pindar, but the drinking of water "unmixed", without the addition of wine, was discouraged by many doctors.

Food was a medium of patronage and dependence. The dependants (*parasitoi*) of powerful Athenians and the courtiers (*kolakes*, "flatterers") of Hellenistic monarchs were fed by their masters, and paid for their food with more or less tangible services. Cities honoured their guests with dinner in the *prytaneion*, a public building containing dining rooms.

The Hellenistic cuisine of the eastern Mediterranean, after Alexander the Great's conquests, took on a new style influenced by Macedonian, Persian, and other cuisines and customs. Trade within the Mediterranean area continued to grow; crop varieties were exchanged and tested in new environments. New fruits (peaches, cherries, lemons) were introduced from the east; spices began to be imported from Persia, India, and beyond. Thus the Hellenistic menu differed from the Classical Athenian menu in many ways. New kinds of bread became popular, some apparently native to Cappadocia and Syria. Oven-roasting of meat was introduced from the East, allowing the development of large and elaborate stuffed meat dishes, which afterwards became typical of Roman cuisine. Macedonians liked to drink wine earlier in the meal and with less admixture of water (this, some said, killed Alexander).

No sudden change occurred when most of the region became part of the Roman empire. In the arts of luxury Rome deferred to Greece. The cookery of Rome came under strong Hellenistic influence – Greek cooks were in heavy demand – and Latin is full of Greek loanwords for food terms. From Roman times (about AD 200) comes the single most important source text for ancient Greek food and dining, the *Deipnosophists* ("professors of dining" or perhaps "professors at dinner") of Athenaeus of Naucratis. A second important text (not yet translated into English) is Galen's dietary survey, *On the Properties of Foods*.

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FOREIGNERS

Homer's Trojans are not markedly different in character from his Greeks. As knowledge of foreign peoples penetrated the Greek world, however, increasingly the Greeks came to define their own character in opposition to that of foreign peoples. Pindar spoke of how the man without a wagon was a nomad among the (nomadic) Scythians: the Greeks, by comparison with the archetypally rootless Scythians, saw themselves by definition as city dwellers. The lyric poets of the Archaic age already identified luxurious living and tyrannical government as characteristic of Asia. The contrast between Greeks and "barbarians" and the accompanying sense of a common Greek identity were given a new emphasis in the aftermath of the Persian Wars between the cities of the Greek mainland and the Persian kings Darius and Xerxes (490–479 BC). Herodotus famously encapsulated this common identity by making the Athenians deny a charge of betrayal by pointing to their "sharing the same blood and the same language, with common shrines to the gods and sacrifices, and the same way of life".

The common blood of the Greeks is, among these criteria of Greek identity, perhaps the one given least emphasis in our sources. However, the differences in way of life between Greeks and foreigners are often seen as dictated by innate characteristics. The Greek version of the origins of the monarchy of the Medes, for example, describes how, living in villages with no form of common organization, the Medes gradually turned for the settlement of disputes to the authority of a single man, their future king Deioces, who then imposed his own terms and conditions. The Medes, the story implies, naturally gravitate to a strong leader; the peoples of Asia – by contrast to the freedom-loving Greeks – are natural slaves.

Greek polytheistic religion was, at least overtly, a universal religion. The Greeks equated their own gods with those of foreign peoples, saying, for example, that Dionysus was the Greek name for Osiris or that the Ethiopians worshipped Zeus and Dionysus "alone of the gods". There was no duty of evangelizing in ancient Greek religion. The Greeks could even espouse an ideal that to mock the religion of another people was "madness". However, there were other more subtle ways of distancing the religion of foreigners. Toleration of foreign gods rarely – and only with great caution – led to the institution of those gods' cults. (Though there were "Panhellenic" sanctuary

sites such as Delphi and Olympia, different Greek cities likewise had their own distinct cults of common Greek gods.) Some foreign gods proved untranslatable: the grounds are difficult to discover, but probably include the barbaric nature of their rites. Ironically also the intolerance of other peoples was itself the subject of disapproval. The Persians were (in some instances unfairly) charged with gross acts of sacrilege; a number of stories from the Persian Wars relate, with apparent relish, the come-uppances of the perpetrators of such crimes. The Greek destruction of foreign temples was, by contrast, accidental. The practice of *proskynesis* – probably the blowing of a kiss while leaning forward – offered by the Persians to their kings was inaccurately but persistently believed by the Greeks to represent a form of worship. While the Greeks often saw foreign lands, especially Egypt, as the privileged source of religious wisdom and the land from which (in the distant past) their own knowledge of the gods largely derived, it is noticeable that by their own time they had overtaken the Egyptians in the number of gods in their pantheon.

It was the incomprehensible babble of foreign languages that led to the Greeks terming foreigners *barbaroi* or barbarians. Greeks travelled widely for trade; Greeks served as mercenaries in Egypt in the Archaic period and as administrators and builders in the heart of the Persian empire at Persepolis. But though there must have been Greeks who were fluent in foreign languages, stereotyped caricatures of foreign languages continued; there is also little sign that the ability to speak a foreign language was given any status in the Classical period. The Athenian commander in the Persian Wars, Themistocles, was said to have learnt the Persian language within a year of exile in the Persian court, but there is little suggestion that this was a cause of admiration; rather it seems to have been adduced as another example of his extraordinary cunning. The story, recorded by Plutarch, that a Persian interpreter was killed for daring to express barbarian commands in Greek, is one of a number of anecdotes suggestive of a Greek chauvinism concerning their language. Similar chauvinism attached itself, however, to individual Greek "dialects" – the distinction of language and dialect is essentially a modern one – as to Greek as a whole.

In general also, a sense of national identity by contradistinction to foreign peoples was far less dominant in the ancient world than in the age of the modern nation state. Self-definition could take place as much by opposition to other Greeks, in terms of belonging to a city state (or polis) or to family and kinship groups, as in opposition to "barbarians". Nineteenth-century historians envisaged Greek history as a failed process of national unification. But though Panhellenism proved a convenient slogan for those resisting Persian conquest or for Alexander the Great in his expedition into Asia, any such sense of common purpose was fragile.

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See also **Identity; Metics**

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FORESTRY

"Forestry" is a term not really applicable to pre-modern Greece. Modern forestry is a specialized art, concerned with growing trees merely as a timber crop. Usually it is done on the basis that trees begin by someone planting them and die when they are cut down. In earlier traditions of woodmanship, in contrast, trees are wild creatures, arising spontaneously, and many species survive being felled, and sprout from the stump. Modern forestry has been practised in Greece for over a hundred years, but has not come to dominate the landscape nor to supplant earlier, more complex relations between people and trees.

Trees grow in most parts of Greece, but in the drier eastern half of the country they are getting near the limit of their range and grow slowly, especially when close together. By modern standards they often make poor-quality timber: typical Mediterranean oaks are short, hard, crooked, and difficult to work.

In Classical Greece woodland was of rather limited extent and was to be found mainly in the mountains. Then, as now, the abundant trees were evergreen and deciduous oaks, juniper, various species of pine, fir at high altitudes, and (in Crete) cypress and plane. Trees had many uses: besides timber, they provided fuel, stakes for vineyards, leaves to feed animals, acorns, resin, stocks of pear and olive on to which to graft fruit-bearing varieties, oak bark for tanning leather, osiers for

basket-making, fruit, drugs, etc. Fodder could be supplied by trees that, because of constant browsing, never grew larger than shrubs, as happens with the common Greek prickly-oak and many others. Firewood and some timber came also from olives and other cultivated trees.

Most trees in Greece other than pines and firs can be coppiced: when cut down (or burnt), they sprout from the base and yield further crops of produce. Regrowth is delayed and hindered by browsing animals. In modern Greece many trees are pollarded (cut at 3 to 4 m above ground) to protect the young shoots from browsing animals.

Ancient Greeks apparently managed their woods, though not by modern forestry methods. On Chios leases written on tables of stone mention coppice-woods attached to farms, which were expected to produce so much weight of wood each year forever, either for consumption on the farm or by way of rent. The quantities, a ton or two per year, were quite small. One clause has been interpreted as meaning that the farm was forbidden to let livestock browse on growing trees, but the text is damaged and the sense unclear at this point. Some big woods had names. The wood Skotitas in the Peloponnese, described by Pausanias, which also had its own god, is still extant. Wood in various forms was regularly imported to islands like Delos that were without woodland.

Athens, giant of Greek cities, was relatively well supplied with woodland, with pine and evergreen oak on Mounts Parnes and Cithaeron and in the Isthmus. Some of it was private property: a list of the lands of condemned criminals, graven in stone in 414 BC, includes an oakery and probably a pinery. Athens was apparently self-sufficient in wood and charcoal, supplied by professional woodcutters. Demosthenes, for example, mentions a farm where six donkeys were working all the time carrying wood to market. Woodland was probably less extensive and certainly less well grown than it is today.

Attic vegetation fuelled production from the silver mines at Laurium, whose output paid for imports of corn and timber. At a rough estimate, Laurium could have kept going indefinitely on the growth and regrowth of maquis on at most 30,000 ha of land. The Athenians were using perhaps one seventh of their land area as a fuel supply for what was by far their biggest industry.

Timber for shipbuilding or big construction came from far away. According to Theophrastus, the sources were Macedonia (the best quality), the Black Sea, Thessaly, Arcadia, Euboea, and Mount Parnassus (from which came the worst). Other documents and inscriptions record minor supplies from all over the Aegean and even Sicily. Athenian foreign policy had to maintain access to the timber of Macedonia: if the Athenians failed in this they had to do without a fleet. The quantities were not great, for a trireme was a huge, lightly-built racing rowing-boat; but specially long timbers were needed for keels and masts.

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FREEDOM

W.G. De Burgh reiterates a cliché of Classical scholarship when he calls the ancient Greeks "the people who created science, who first grasped the meaning and worth of freedom in thought and action". Denys Haynes echoes the claim that "the relationship between freedom and necessity is the fundamental theme of Greek art", and adds that the idea of human freedom is "the highest achievement of Greek thought, distinguishing it from that of all the other peoples of the ancient world and laying the foundation of our modern Western civilization". Gilbert Murray goes further still, asserting that "of all peoples known to us in history, the Greeks were far and away the freest thinkers", and that (despite China and India) "there is no philosophy except in Greece or derived from Greece." In science, art, philosophy, and of course politics ancient Greece (especially Athens) has long been celebrated as the birthplace of freedom.

Recent critics have cited factors that complicate or contradict this traditional picture. The cultural authority of the West, of which Greece is supposed to be the foundation, has itself been called into question. Greek anti-barbarian sentiment is reconceptualized as the prejudice of "orientalism". Athenian democracy is scrutinized for its exclusions and oppressions (for example, women and slaves). Greek claims to priority in science, and even science's claims to intellectual pre-eminence, are challenged, in the name of multicultural fairness. In response, defenders of the traditional view insist that the challenges themselves rely on unacknowledged appeal to aspects of the Greek intellectual legacy. Such disputes are made more difficult by the fact that freedom is a complex and contestable concept to begin with. In a brief discussion it must suffice to sort freedom into three rough categories: practical, political, and philosophical. Greek thought and practice have made significant contributions to understanding all three.

Freedom in the practical sense is the power to live as one chooses. This notion of freedom is tied to the idea of self-rule (autonomy). Individuals are *un*free in so far as their lives are determined not by themselves (that is, by their values, desires, and beliefs) but by what is other than themselves. Since human beings do not appear to be immortal, let alone omnipotent, and since one person's power must often limit the power of another, this sort of freedom can only be possessed to a degree. One may hope to see such power expanded to more people, to more kinds of people, to more aspects of human life. The intellectual project of expanding human freedom through expanding human power runs from the ancient Greeks down to 14th-century "humanism" and the 18th-century "Enlightenment", and so on to the present. On the traditional account, Greek rationality was the enabling precondition for the subsequent development of western scientific inquiry; some recent critics, however, view this as naive and ethnocentric. In any event, one human's power is another's vulnerability, so the quest for freedom is not merely an intellectual or technological undertaking, but requires adjustment in social forms. Except in ideal circumstances, practical freedom requires social and political support

(though the demands of political freedom can be viewed as themselves impinging on one's practical freedom).

Freedom in the political sense is the power to participate in a suitable way in the processes that determine the political structure in which one lives. Freedom in society requires limits, and therefore the transformation of external constraints into self-rule (*sophrosyne*). By incorporating aspects of social reality into the self, one can see regulations as expressions of the "civilized" self, which is a creation of the polis. In classical practice, this political conception of freedom can be praised for its natural affinity with notions of democracy, equality, privacy, and individual self-expression, or criticized in view of the restrictions on membership in the polis. To modern readers, Plato's attack on democracy and Aristotle's defence of slavery strike sour notes. Whether the cultural achievements of Athens' golden age "required" the material foundation of slavery on which it in fact relied, and whether such a requirement could serve in any measure to "justify" that society's abridgement of freedoms, are uncomfortable questions still often debated. Several scholars (for example, M.I. Finley and Orlando Patterson) have suggested that the existence of slavery contributed conceptually to the development of the idea of freedom, which grew out of the very exclusions of Athenian democracy.

If the opposite of political freedom is slavery (and other forms of oppressive dependence), the opposite of philosophical freedom is determinism. The notion of fate or destiny (*moira*) colours early Greek religious thought, and connects to familiar philosophical questions about freedom of the will. Later, Stoic sages advise restricting desire to the sphere in which one is able to exert some control. While one may not have the power to live as one chooses, one can still choose to live one's life in conformity with the power that one does have. Freedom in this philosophical sense consists of adjusting expectations to the realities of one's situation; freedom requires acquiescing in necessity. This viewpoint is expounded in Greek by both slave (Epictetus) and emperor (Marcus Aurelius), with enduring influence on western thought. In the koine Greek of the New Testament, St Paul (whom Gilbert Murray called "one of the greatest Greek writers") adapts the paradox that true freedom consists of acquiescence in being bound by (religious) truth. Paul's frequent references to himself as the "servant" (*doulos*) of God and of Jesus, along with his exhortation to servants "to be obedient unto their own masters" (Titus 2: 9) – though these are part of the transvaluation of values that Nietzsche would later complain about – help to define a religious notion of freedom for Christianity, which plays a dominant role during the Byzantine period of Greek history and after. This religious version of the philosophical notion of freedom also has metaphysical concerns about the place of human action in a non-human world (ruled by God), and it raises political questions, particularly in connection with the idea of a Christian polity, whether that of an empire, like Byzantium, or that of a quasi-secular, henotheistic nation, such as modern Greece. (Additional religious and political complexities characterize the long interval of Turkish domination and the struggle for independence and national self-determination.)

The often expressed (but misleading) idea that Greek civilization was "centred on the individual" may serve to unite the three sorts of freedom, for the individual is a participant in the struggle to survive in nature and in society, as well as the subject of that play of power and desire whose rational articulation comprises the substance of philosophical freedom. Some will find the important expression of human freedom in the expansive, pleasure-seeking, Epicurean (even "Dionysian") approach, while others will hold that a realistic sense of human freedom is best discerned by the restrictive, desire-limiting Stoic (and, in terms of Nietzsche's influential dichotomy, "Apollinian") approach. In this sense, the debate about freedom is not likely to reach either an answer or an end, and it may well be that, in the words that E.R. Dodds quotes from T.H. Huxley, "A man's worst difficulties begin when he is able to do as he likes."

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See also **Democracy; Fate; Slavery**

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FURNITURE

The human activities of sitting, eating, lying down, and storing objects required furniture in the homes of ancient Greece. The development of hierarchic sociopolitical structures in the

Bronze Age gave added impetus to furniture development, in the multiplicity of forms and decorative embellishments, as seen in the decorative ivory and gold inlays from the Mycenaean period.

Stationary furniture, such as dining couches, and outdoor furniture, such as benches in a theatre, was often sculpted out of bronze and stone. But furniture construction was generally within the province of carpenters, because wood was the typical material, being relatively lightweight, durable, and easy to fashion. Wood varieties mentioned by ancient Greek authors include maple, beech, oak, willow, cedar, cypress, yew, juniper, poplar, fir, lime, olive, elm, and pine. By the 6th century BC Greek carpenters had most of the possible hand tools for working wood – the adze, axe, saw, plane, hammer, chisel, borer, screwdriver, file, rule, level, plummet, and lathe. Joinery techniques depended on wood constructions of dowel and tenons, socket and tongues, butterfly cramps, and complex mitre joins rather than metal hardware. Steamed bent wood is seen in the chair backs of the 6th and 5th centuries BC. Finishing techniques included veneer, painting with geometric decorations, and oil polish.

The earliest references to Greek furniture are from the Mycenaean culture. The original 13 linear B furniture tablets found in the palace at Pylos in 1939 (now in the National Archaeological Museum, Athens) record elaborate chairs, footstools, and tables made out of stone, crystal, yew, boxwood, or ebony inlaid with ivory decorations depicting cattle, lions, stags, trees, men, shells, and rosettes. Ivory ornaments have been found at several Mycenaean sites that are probably the inlaid remains of such furniture, from which the wood has disintegrated. Additional evidence comes from the miniature, crudely painted terracottas found in graves that portray low, simple beds and three-legged, sling-back chairs. Clay benches were common and found at Pylos, as was a big clay bathtub. A fresco from Pylos shows tall three-legged wooden tables carried by votaries.

Evidence for furniture from the Greek historical period consists largely of literary sources and images on pottery and sculpture, and consequently, our knowledge is limited primarily to Classical Athens. The types of ancient furniture included chairs and stools, benches, beds and dining couches, tables, and chests. Round metal or pottery oil lamps, which held a wick in the spout, provided light and could be placed on the floor, a shelf, or on tall bronze, single-legged stands. Personal possessions remained few, and clothing simple. Most household objects were stored by hanging them on the wall or placing them in chests (*kibotoi* or *larnakes*) or small boxes. Clothing in particular could be folded flat, since it was made of rectangular pieces of cloth, and stacked in large chests with a top lid. Thrones (*thronoi*) and footstools (*thrinyes*) were manufactured with animal legs, which had been popular in Egypt and Mesopotamia; lathe-turned legs, which become common in Greece only after the 7th century BC; rectangular legs; or solid sides extending to the floor. Thrones had a hierarchic meaning in that they elevated and enlarged the stature of the nobility and, of course, deities. The popular, lightweight chair (*klismos*) with curved back and legs was an extraordinarily graceful Greek invention that was used for domestic purposes; it was easy to lounge in while draping one arm over the back. Four-legged (*diphros*) or folding stools (*diphros okladias*) were also used for seating. Tables, usually three-legged (*trapezai*), were lightweight due to dining customs. Food was carried on these low portable tables from kitchen to dining-room and removed afterwards or pushed under the dining couches so that the space could be used for entertainment. The dining couches (*klinai*), on the other hand, were stationary, often the only permanent furniture in the house, and so could be solidly made and heavy, sometimes constructed of bronze. Eating while lying down was practised in the ancient Near East on waist-high couches, mounted by means of a footstool, but the long bow-curved end of the Assyrian couch was not adopted in Greece. Instead, the Greek couch extended two of its legs higher than the seat to support the arm-rest pillows. Dining couches carried specific social connotations, in that well-born men used them for sleeping or dining. They usually shared a couch with another man or a courtesan. Wives, however, dined in separate quarters, upright on chairs.

CATHERYN CHEAL

See also **Woodworking**

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G

GALEN AD 129–?208/16

Physician and philosopher

Galen, a prolific Greek physician and philosopher born in Asia Minor (Pergamum), became the dominant influence on European medicine from the Roman empire until the Renaissance. The son of a prosperous architect, he was educated in rhetoric and studied philosophy under Platonists, Aristotelians, and Stoics in Pergamum before taking up the study of medicine. The effects of this early training on his thought and style remain amply visible in the more than 170 fully and partly extant treatises attributed to him (a substantial majority of which are of undisputed authenticity). After continuing his studies under distinguished physicians in Smyrna and Alexandria, Galen returned to Pergamum in AD 157, where he apparently became a spectacularly successful physician to wounded gladiators. In AD 162 he went to Rome, returning to Asia Minor in 166, only to be called back by Marcus Aurelius in 169 to serve the Roman imperial court, in whose service he remained thereafter.

Galen attempted to give a comprehensive, detailed account of all aspects of medicine: anatomy, physiology, nosology, aetiology, diagnosis, prognosis, pathology, therapeutics, dietetics, pharmacology, surgery, deontology, ethics, psychology, medical education, medical history, theory of scientific method, and so on. He constantly wove conceptual, doctrinal, epistemological, and methodological links between the different branches of his comprehensive enquiry, thus lending his project the appearance of a systematic, monumental, and scientific whole. Furthermore, he had many impressive prognostic, surgical, and other therapeutic successes (for example, removing a suppurating breastbone and often succeeding where all other practitioners had failed), proving that he was not merely a brilliant theorist but also an accomplished clinician.

Galen's public anatomical demonstrations, at which he dissected and vivisected various animals, appealed to the theatrical sense of a 2nd-century audience attuned to the "display" culture of the Sophists' public declamations. Unlike Herophilus and Erasistratus, he never performed systematic dissections of human cadavers, and his use of comparative anatomy at times led him to attribute non-human features to the human body. His meticulous dissections of monkeys, apes, pigs, goats, etc. (recorded in *On Anatomical Procedures*) nevertheless allowed him to correct numerous observations and theories of his predecessors.

A voracious reader, Galen eagerly displayed his encyclopedic knowledge of the works of his precursors and contemporaries, and, for the most part, he was unsparing in his criticism of them. Even to Plato and Hippocrates, whom he revered more than all others – and whose views, he argued at length, are essentially in agreement (*On the Doctrines of Hippocrates and Plato*) – Galen at times responded with independence and originality. By constantly incorporating the history of medicine and of philosophy in impressive, if often self-serving, critical detail, he positioned his treatises as superseding all others. An invaluable, if unintended, benefit of this Galenic strategy is that he is an invaluable source for the history of medicine between the Hippocratic Corpus and the 2nd century AD, providing numerous quotations from the lost works of Diodes, Herophilus, Erasistratus, Asclepiades, and others. He likewise preserves significant evidence concerning lost philosophical works (e.g. of Posidonius) and many fragments of Greek poetry.

Galen used his keen philosophical ability to lend his work the authority of a sophisticated logic of scientific demonstration. He viewed medicine as a completable axiomatic science. Any gaps, errors, and inaccuracies in scientific medicine arise, he believed, not from the nature of the medical *techne* itself but from human cognitive or linguistic failures or from quantitative imprecision. His mastery of logic – to which he made original contributions – as well as his teleology and his treatment of many psychophysical questions rendered Galenic medicine appealing to numerous philosophers, too, in subsequent centuries.

Anatomical investigations and physiological experiments provide scientific proof of the providentiality of nature, Galen insisted. "Nature does nothing in vain": on this point he agreed with Aristotle, but he defended a stronger version of teleology than perhaps any of his predecessors. In his principal work on physiology (*On the Usefulness of the Parts*), Galen attributes the pervasive purposiveness visible in the body to a divine, craftsman-like "Nature", evoking many echoes of Plato's *Timaeus* (on

which he wrote a commentary). Though reserved on issues such as the immortality of the soul, Galen adapted the Platonic version of a tripartite soul to his anatomical discoveries, locating its three parts in the brain, the heart, and the liver, respectively. From the brain, he argued, psychic *pneuma*, derived from the vital *pneuma* in the arteries, is distributed through the nerves (making sensory and motor activity possible). All the principal physiological activities – respiration, heart-beat and pulse, ingestion and digestion, sensation, and voluntary motor activity – are interdependent and interactive, brought together in a single, coherent, teleological model. In pathology Galen appropriated the four-humour theory of the Hippocratic treatise *On the Nature of Humans*: the relative proportions of four juices or liquids in the body – phlegm, yellow bile, black bile, and blood – determine health and disease.

The medical authority of Galen's vast corpus was rarely challenged in the millennium after his death. Already in the 3rd century AD he was recognized as surpassing all other physicians. In the 4th century Nemesius, bishop of Emesa, made extensive use of Galen in his *On the Nature of Humans*. Galen's fervent advocacy of teleology made him acceptable to many Christians, and he was admired by a heretical sect, the Adaptionists, who tried to provide a rational, philosophical basis for Christian doctrine, perhaps prompted in part by Galen's criticisms of Christians and Jews. In the mid-4th century Oribasius initiated a long tradition of excerpting and summarizing Galenic texts. Aëtius of Amida and Alexander of Tralles (who was not uncritical of Galen) continued this tradition in the 6th century, as did Paul of Aegina in the 7th. In Alexandria physicians and Neoplatonists alike lectured on Galen throughout later antiquity; the Christian Neoplatonist John Philoponus (AD 490–570s) had high praise for Galen's original contributions to logic and science, as did his contemporary Simplicius.

The Alexandrian iatrosophists of late antiquity selected a canon of perhaps 16 Galenic writings to be read in schools, to be summarized, and to be commented upon. The first four treatises in the canon were *On Sects for Beginners, The Medical Art, On the Pulse for Beginners*, and *To Glaucon on the Method of Healing*. For the most part, the Alexandrians' selection and sequence do not correspond to Galen's own propaedeutic recommendations, but they became a decisive step in the Alexandrians' scholastic transformation of the Galenic oeuvre into a medical system that was to dominate European and much of Arabic medicine for centuries.

Among numerous other Byzantine writers who drew extensively on Galen, whether directly or indirectly, are Stephanos of Athens (who wrote a commentary on Galen's *To Glaucon on the Method of Healing*), Meletios the Monk, Theophilos Protospatharios, and John (Zacharias) Aktouarios.

A rare Byzantine attempt at refuting Galen occurs in a treatise by the 11th-century scientist Symeon Seth, who was equally familiar with Greek and Arabic traditions. Tensions between Aristotelians and Galenists grew as Aristotle and Galen came to be recognized as the two greatest representatives of a science rooted in logic and in systematic philosophy. Numerous translations, summaries, commentaries on Galen's treatises, and adaptations of his work in a variety of languages (e.g. Latin, Syriac, Arabic, and Hebrew) attest to his stature both in the East and in the West. Even when his authority began to be challenged, especially after the resumption of systematic human dissection in the early modern period, Galenism remained a powerful force in European medical thought for several centuries.

HEINRICH VON STADEN

See also **Anatomy and Physiology; Dioscurides; Health; Herophilus; Hippocrates; Nicander**

Biography

Born in Pergamum in AD 129, Galen was the son of an architect. He studied rhetoric and philosophy in Pergamum before turning to medicine. After further study in Smyrna and Alexandria he returned to Pergamum in 157 and went to Rome in 162. Returning to Asia Minor in 166, he was recalled by Marcus Aurelius in 169 and remained in imperial service until his death in 208 or 216. He was a prolific writer on all aspects of medicine; more than 170 surviving works are attributed to him.

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GAMES AND SPORTS

Influenced by the Minoans, and possibly also by the Egyptians, the Mycenaeans almost certainly engaged in athletic activities. Myth suggests the purposes as honouring a god (e.g. Zeus at the Olympic Games) or a dead hero (e.g. Patroclus' funeral games in book 23 of the *Iliad*) or just as entertainment (e.g. the Phaeacian games in book 8 of the *Odyssey*). By the classical period they were both an essential part of the school curriculum for boys and a pursuit for youths and men of all classes at the public gymnasia and the private palaestrae. The Greek attitude to them is most succinctly encapsulated in the famous phrase of Juvenal (10. 356), *mens sana in corpore sano* (a healthy mind in a healthy body), which does not, however, come from an athletic context. Alexander the Great's subjugation of the Near East in the 4th century BC spread this attitude to non-Greeks, most surprisingly, perhaps, to young Jewish priests who in the 2nd century BC forsook their duties in the temple for the delights of the discus (2 Maccabees, 4. 7–17). Even 300 years after Alexander's more evanescent conquests deeper into Asia, an Indian prince was throwing the discus and the javelin in an especially laid-out area of his palace. Athletic sports did not, however, have much appeal to the Romans, whose gladiatorial atrocities were in turn generally despised by the Greeks.

Although girls, especially in Sparta, participated in some athletic events including on occasion even wrestling, adult women were denied the opportunity. From the 6th century BC all males (except in equestrian events) competed naked, their bodies, to prevent dirt entering the pores, covered in olive oil which was later scraped off with a strigil. Homer describes chariot racing, boxing, wrestling, running, an armed joust, the throwing of a stone and of a piece of metal, and archery. In the classical period the events that comprised the competitions at the public games fell into four groups: running, the pentathlon, fighting, and equestrian events.

Apart from relay races with a torch for a baton, which were rather part of religious cult than athletically competitive, there were four running-races: the *stade* and the race in armour were one length of the stadium and the *diaulos* two, while the *dolichos* was a long-distance race. As the lengths of stadia differed, so did those of these races, but they approximated to a furlong (200 m), a quarter of a mile (400 m), and three miles (4.8 km) (the marathon is a modern commemoration of Phidippides' run from Marathon to Athens to announce the victory over the Persians in 490 BC). The *stade*, the original event in the Olympics, traditionally founded in 776 BC, carried the most prestige. In all races runners first started, at the sound of a trumpet, from a *gramme* (scratch-mark) in the sand, but in the 6th century BC this was replaced by a *balbis* (stone sill) with grooves for the toes, to which was added in the 5th century a *husplex* (starting gate). This last was operated by a man behind the runners releasing simultaneously cords which were attached to horizontal bars on vertical posts in front of each runner (the remains at Isthmia provide the best archaeological evidence). Turning-posts were used in the *diaulos* and *dolichos*, but it is not known if each runner had his own post or if, more likely, they all turned round the same post. There was no finishing-tape, and if the judges could not distinguish a winner a rerun was held. Heats were used when more than the 16–20 runners that the varying widths of stadia could accommodate competed.

The pentathlon, first devised probably for the Olympic Games of 708 BC, comprised five activities: a jump, a discus throw, a javelin throw, a *stade* race, and wrestling, for the first three of which there were no separate competitions. The winner was the first athlete to win three events: running and wrestling presumably took place only if no clear winner had already been determined. Despite the pentathlon's popularity on vase-paintings, Plato's comment (*Amatores* 135e) that it was the opportunity for the second-rate athlete, and the small prizes for winners known from the Hellenistic period, suggest that it ranked low in prestige.

The jump was performed to the sound of pipes as a rhythmic aid by athletes who held *halteres* (jumping-weights) of 1.8 to 3.6 kg in their hands. Since the only three recorded distances are between 15 and 17 m, the jump is most likely to have been a multiple jump, perhaps the modern hop-step-and-jump or triple jump which was introduced as an interpretation of the ancient event. Aristotle claims (*De Incessu Animalius* 705a17) that the athletes jumped further with *halteres*, and modern athletes have found that weights can improve distance in the long jump (and, if they are released, even in the high jump), but it is difficult to see how this could be possible in a multiple jump unless they were released in the first segment. The evidence of both literature and vase-painting, however, points unanimously to their retention.

The discus was usually made of bronze in the Classical period. Surviving examples vary in diameter from 16 to 34 cm and in weight from 1.3 to 6.8 kg. Although the athlete threw forwards from an area demarcated in front and at the sides, and could consequently make a preliminary run, he is unlikely to have done this. Vase-paintings and sculptures show reversed feet, probably indicating at least a partial turn of the body, and a rope-like pull with the right arm. The only recorded throw is of 29 m.

The javelin was generally made of cornel wood tipped with bronze. It was thrown, after a run, by an athlete holding it roughly horizontal above his head, with a thong wrapped round the shaft and looped over the first or first two fingers of the throwing hand. This perhaps gave added leverage, but certainly enabled the javelin to spin on its own axis, thus being steadier in flight and, in its military equivalent, boring into its target like a bullet. It had at least to nick the ground on landing.

The three fighting events were wrestling, boxing, and the *pankration* with no weight divisions, rings, or rounds. Judges attended the fights and beat with canes those who infringed the rules. The longevity of some fighters was remarkable: Milon, a boxer from Croton in the 6th century, must have been a

champion for at least 21 years since he won six Pythian crowns (and five Olympic). Weightlifting must largely be considered as a form of training for these fighting events rather than as a sport in its own right.

Wrestlers, who had to make their opponents' shoulders touch the ground three times in order to win, were not allowed any leg-holds, although their legs could be used to sweep opponents off the ground. Vase-paintings and sculptures show numerous holds, upon which the modern Graeco-Roman style is based.

The aim of the boxer was to incapacitate his opponent (there are only two recorded deaths, both the result of fouls), or to force him to submit by raising an index finger. As was probably the case in Minoan boxing, the head was the sole target, and vase-paintings frequently show boxers (always right-handed) with head held back and chest thrust forward. In the 1st century AD a remarkable athlete from Caria named Melancomas displayed a completely different technique by skipping out of the way of his more ponderous opponents until they gave up in exhaustion. He is reputed never to have been hit and to have engaged in one bout that lasted two days. In training, shadow boxing was practised and fighters wore ear-guards and, to avoid hurting each other excessively, padded gloves, but in competition they bound *himantes* (thongs) round the knuckles for self-protection: the nickname *murmekes* (ants), applied to these *himantes*, indicates how they stung.

The *pankration*, which had the same aim as boxing, was a fight in which everything was allowed except gouging and biting. To judge from the number of poems commissioned from Pindar by pankratiasts and the magnitude of Hellenistic prizes, this was an event which both carried considerable prestige and appealed to the upper class.

Chariot-racing was for aristocrats, owners rather than competitors receiving the prizes. Despite the pride of place given to it by Homer, it did not feature in the Olympic Games until the 25th celebration in 680 BC. Light chariots were pulled by teams of two or four horses, or two mules or two foals, completing up to 12 laps between two markers. Hippodromes varied enormously in size from about 275 m to one in Athens that allowed a race of about 1.6 km without a turn. At Olympia the track was about 550 m long, and at the sound of a trumpet a rope barrier across stalls set in a convex line was removed in such a way as to give all teams a fair start, each driver having a flying start on his inside rival. Over 40 teams are known to have taken part in a single race. Bareback riding was far less popular, but appeared at Olympia as early as 648 BC.

Although not recommended by medical practitioners, most Greeks could swim according to Herodotus (8. 89), who attributes the large number of survivors from the Battle of Salamis in 480 BC to this fact. The 6th-century Sicilian Olympic boxer Tisander used long-distance swimming for training. References are found to both breaststroke and front crawl, while beginners had the help of cork lifebelts and a fresco of the 5th century BC from Paestum shows a youth diving from what appears to be a diving-tower. There is literary evidence for occasional swimming races, while regattas for rowing were certainly held in the Imperial period.

Ball games were apparently aimed at healthy exercise (in the 2nd century AD Galen, in his *De Parvae Pilae Exercitu*, is particularly enthusiastic) and pleasure rather than serious competition, but they were important enough to form the subject of a lost treatise by the Laconian Timocrates (Athenaeus, 1. 15c). Homer describes Nausicaa and her attendants throwing a ball to each other, a late archaic bas-relief from Athens depicts what looks like a bully-off in hockey between two players while others with curved sticks look on, another bas-relief shows a throw-in in a team game, a black-figure vase shows a game in which an old man leaning on a stick is throwing a ball to three pairs of youths piggyback in front of him, a 5th-century relief has a youth bouncing (or balancing) a ball on his thigh (Spartan youths in the Roman period played a ball game with teams of 14 a side), and in the 2nd century AD Pollux describes (9.4) the game of *episkuros* that sounds a little like rugby football without any kicking.

Other games included hoop bowling (for youths as well as children), marbles, and, for the more sedentary, dice, knucklebones, and draughts, which last was played on a board of 36 squares with a "sacred line" down the centre to separate home from enemy territory. The most frequently mentioned game is *kottabos*, in which inebriated symposiasts, while reclining on their left elbows, threw with their right hands the last drops from their wine cups at varied targets such as saucers floating in water and objects that could fall when struck.

A.R. LITTLEWOOD

See also **Olympic Games**

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GARDENS

Finds of plant pots of clay or faience with holes at the base attest to the cultivation of flowers or herbs in the Aegean area in the 2nd millennium BC. The art of the Mycenaeans shows a persistence of floral motifs which is probably due to the non-Greek but associated and culturally influential Minoans, in whose

frescos, glyptic art, metalwork, and painted pottery floral landscapes figure prominently. Although there is as yet no evidence that the Mycenaeans actually cultivated pleasure gardens, it is probable that the Minoans, under Egyptian inspiration, may have done so. A restored fresco of the Middle to late Minoan period from a villa at Amnisos northeast of Knossos appears to show lilies arranged in a formal setting reminiscent of a garden. Excavation suggests the possibility of terraced gardens leading off porticoes in some Minoan palaces. At Phaestus in central Crete a rocky outcrop in the southeast area of the palace was not only cut back but also furnished with round holes, most likely once filled with soil and planted with flowers to create a tiny garden for the associated court and portico. The flowers in vases depicted in several frescos are, however, probably not growing but cut and wild.

The epics attributed to Homer, which frequently reflect the culture of the dark age rather than the preceding Mycenaean period, contain descriptions of gardens. Although these are mainly kitchen gardens and orchards providing grapes, olives, figs, apples, pears, pomegranates, and vegetables, there is also mention of groves associated with the shrines of gods and the graves of heroes. The almost lyrical delight in the beauties of nature shown in these poems is in sharp contrast to the harsh realities of practical agriculture in the roughly contemporary *Works and Days* of Hesiod.

Private gardens in the Classical period were again almost entirely utilitarian, even flower gardens having profit as their primary purpose in the sale of their produce for garlands. Unlike the situation in the Persian and the later Roman empires, horticulture and even agriculture were not considered gentlemanly pursuits in Greece. Urban houses were simple and small with no surrounding land but a central courtyard that rarely measured more than about 50 square metres, was usually paved, often contained a well and an altar, and served for many everyday domestic activities: it could have accommodated at best only a few potted herbs. The sole common private non-utilitarian gardens were the so-called Gardens of Adonis, but these were merely pots of fast-growing plants that died quickly and thus symbolized the life and death of the divine Adonis.

Public gardens in the Classical period were largely groves of trees (especially cypress, plane, and laurel) around shrines and were chosen for cultic reasons and to give shade. These sanctuaries sometimes also included stands of trees and fields of crops for commercial purposes. Two of the best-known groves were at the shrines of Aphrodite outside Athens and of Zeus and Aphrodite at Cyrene. The only one hitherto excavated surrounded the temple of Hephaestus in the Athenian Agora, but its date is as late as *c.*300 BC. Excavation of square pits dug into the bedrock indicates two straight rows of shrubs or small trees on three sides of the temple and small flowerbeds against the precinct wall. The pits contained deliberately broken pots used for the method of propagation known as layering by circumposition. Groves were planted also at gymnasia, which were themselves often associated with sanctuaries. Such is the origin of the schools of Plato and Aristotle, the Academy and Lyceum respectively, which set the pattern for later philosophical gardens, most notably that of Epicurus, which he left at his death to Athens as a public park.

The changes in the Hellenistic period are primarily due to two factors: the creation of new cities, most notably Alexandria in Egypt, enabled a more generous disposition of buildings with extensive open areas available for sanctuaries and public parks; and the substitution of autocracy for democracy or oligarchy encouraged rulers to spend public revenues on grandiose works that enhanced their prestige, these works including gardens in imitation of oriental monarchs. The most outrageous of these works was a ship designed by Archimedes in the 3rd century BC for Hieron II of Sicily that included a gymnasium with bowers of vines and numerous irrigated flowerbeds, while in the 2nd century Attalus III of Pergamum grew drugs on the deck of his flagship. Terrestrial parks often had artificial grottoes, fountains, sculptures, and an increasing range of plants, an interest attested by botanical treatises such as those of Theophrastus. Private homes, although often larger and more luxurious than earlier because of an increase in wealth, still tended not to include gardens, the central courtyard being often floored in mosaic.

Gardens in the Greek world under Roman rule were Roman in inspiration. The paved Greek courtyard became a peristyle garden with artistic fountains and formally arranged shrubs and flowerbeds. When space was cramped, roof gardens were created and walls were painted in the verisimilitude of gardens complete with birds. Grandees owned numerous villas that were single entities incorporating buildings, porticoes, terraces, arbours, shrubberies, and flowerbeds and occasionally included even a game park. Landscaping, topiary work, sculptures, elaborate fountains, grottoes, and fish ponds all became regular features and garden dining rooms were not uncommon. All cities boasted public parks and temple gardens. Excavation, especially around the Bay of Naples, has revealed a vast amount of information.

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See also **Dioscurides**

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GAZA

City in Palestine

Gaza, on the route from Egypt to Palestine and situated a few kilometres from the sea, and its port, Maiuma, have a long history. Gaza appears in the Bible as a centre of the Philistines. Hellenization began after the city was captured by Alexander the Great in 332 BC. It was ruled by the Ptolemies, and destroyed by the Jewish ruler Alexander Jannaeus in 96 BC, only to be rebuilt by the Roman governor Gabinius on a new site. It received Roman settlers when it became a Roman colony in the reign of Hadrian, perhaps in AD 129. The city worshipped Greek gods, but these were probably Semitic deities whose names and cult had been Hellenized. This is clear in the case of Zeus Manias, the principal god of the city. As late as 395 the majority of Gaza's inhabitants still adhered to paganism.

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GEMS AND SEALS

The use of seals fashioned from engraved semiprecious stones (normally cornelian and other quartzes) has a long history in Greek lands. Their primary purpose was to secure valuable commodities with a mark of ownership or to guarantee the authority of a letter or contract. They comprise much of the best miniature art produced during the Aegean Bronze Age and over a period stretching from Archaic Greece to Roman times, and were certainly valued for their artistry. Apart from the gems themselves, clay sealings survive from destroyed archives such as those of Hellenistic or early Roman date at Delos, Edfu, and Cyrene. Only from the 4th century AD did it become the custom in the Byzantine empire to affix to documents and packages double-sided sealings, normally of lead and made with a pincer-like *bulloterion*.

Seal motifs used in Cretan palaces of the 2nd millennium BC, such as Knossos, were generally engraved on one side of a pierced head which could be worn on a string around the wrist or neck. Subjects comprise much of the standard repertoire of Minoan art, including marine creatures, bulls, and ritual scenes, such as the bull-leaping attractively rendered on an agate flattened cylinder (Ashmolean Museum, Oxford). Seals are quite common as finds and there are also many examples of sealings fired in various conflagrations, which attest to the highly organized and bureaucratic nature of Bronze Age society. The use of seals spread to mainland Greece, and fine examples are recorded from all the major sites, including Mycenae, Tiryns, and Pylos. The collapse of high culture, and with it the decline of literacy, at the end of the 2nd millennium BC brought the use of seals to an end.

From the 9th century BC there was a tentative revival of seal-cutting on the Greek mainland, though the stamp seals that were produced are rather schematically carved, on ivory or soft stone. In the 7th century BC seals of much higher aesthetic quality, often imitating Minoan prototypes, were engraved in the Cyclades. The major revival in gem-cutting came only in the second quarter of the 6th century BC when the Greeks adopted the Egyptian custom of carving seals in the form of scarab beetles. These were worn on a swivel-ring, and the devices engraved on the undersides of these archaic scarabs were thoroughly Greek in character from the start, sometimes orientalizing in style. Popular subjects include satyrs, warriors, lions, and winged figures such as the "mistress of the animals". From about 500 BC the use of the scarab back was largely abandoned and the devices on seals of scaraboid form became more naturalistic, as can he seen in the case of a gem signed by the engraver Epimenes showing an ephebe restraining a horse (Museum of Fine Arts, Boston).

Scaraboids of the 5th century BC are generally larger, and often made of a beautiful grey-blue chalcedony. Classical artists tried to imitate nature meticulously, whether the subject was a nut, a sandal, or an erotic scene. There are many delightful vignettes of animal life, including two studies of herons carved by Dexamenus of Chios (both in the Hermitage, St Petersburg). The same engraver carved a bearded male head (Museum of Fine Arts, Boston) and a delightful scene of a lady with her maid (Fitzwilliam Museum, Cambridge). During the Classical period the use of Greek-style seals spread in the western satrapies of the Persian empire and far beyond, many Graeco-Persian gems depicting figures in Persian costume and mounted hunts carved in an unmistakably Greek style.

Rings with fixed bezels became usual in the following century and were normal in Hellenistic and Roman times. From the time of Alexander the Great the Greek tradition of gem use was spread throughout the eastern Mediterranean area and, indeed, as far as India. A Hellenistic portrait of Alexander in the Ashmolean Museum, Oxford, bears an inscription in an Indian language. Moreover it is carved from tourmaline, demonstrating that rarer stones from the cast were now available. The typical Hellenistic medium was perhaps garnet obtained from the western Himalayas. The changed nature of society is reflected in Hellenistic glyptics, many seals now showing the portraits of Ptolemies, Seleucids, and other rulers, although deities and genre scenes were always more common.

The incorporation of the Greek world into the Roman empire did not mark any real break with the Hellenistic tradition. The Greek style of gem usage had entered northern Italy as early as the Archaic period, and although the Etruscans and other peoples clung to the scarab back for longer, Greek influence from Magna Graecia and beyond continued to be felt, not least in Latium. By the beginning of the 2nd century BC important Romans were

commissioning the best Greek engravers. The emperor Augustus (27 BCAD 14) employed the great Dioscurides for his signet, as we hear from Suetonius, Pliny the Elder, and Dio Cassius. A number of gems from his hand are extant, including a Hermes (Fitzwilliam Museum, Cambridge) and Diomedes stealing the Palladium from Troy (Devonshire collection, Chatsworth).

Among the many gems from Greek-speaking lands in the empire, a special class of gems cut with figured devices and/or magical texts on both sides was widely distributed, especially in the Levant. These could be used in gems as seals but served mainly as amulets. Otherwise, while the occurrence of the Greek language or a Greek name on an inscribed seal indicates a Greek-speaking owner, the style and subject of "Roman" gems from Scotland to Syria are very similar, demonstrating the dominance of the Greek tradition in this medium.

During Hellenistic and Roman times gems were used in all manner of jewellery, especially by women. Even engraved gems were sometimes simply used decoratively in brooches and rings, especially in the case of cameos, gems carved in relief. The best were works of art, cut in the workshops of Dioscurides and his contemporaries, though others were mass-produced, often love-tokens given by men to their girlfriends. Of special interest here are those of the 2nd- or 3rd-century AD carved with Greek mottoes, found not only in Greek lands but as far away as Roman Britain.

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See also **Jewellery**

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GENDER

In this essay, the term "gender" is to be understood as the social and cultural, as opposed to biological, identification of a person's sex, and the distinctions between the sexes.

Though a social construction, gender nevertheless has its ideological roots in biological differences, real or imagined, between the sexes. This is presented most clearly by the 5th-century-BC doctor Hippocrates, who wrote in his *Diseases of Women* (trans. A.E. Hanson, quoted in Halperin):

> I say that a woman's flesh is more sponge-like and softer than a man's: since this is so, the woman's body draws moisture both with more speed and in greater quantity from the belly than does the flesh of a man ... And when the body of a woman – whose flesh is soft – happens to be full of blood and that blood does not go off from her body, a pain occurs, whenever her flesh is full and becomes heated. A woman has warmer blood and therefore she is warmer than a man. Because a man has more solid flesh than a woman, he is never so totally overfilled with blood that pain results if some of his blood does not exit each month. He draws whatever quantity of blood is necessary for his body's nourishment ...

Women are therefore bound to bleed, notably at liminal points of life: menstruation, defloration, and parturition; it is an essential aspect of the prime female role as giver of life. By contrast, it is the man's duty to bleed in warfare, which was understood by the ancient Greeks as the male counterpart to female parturition. Thus Euripides' Medea proclaims that she would prefer to face battle three times rather than give birth once (*Medea*, 250ff.), and the laws of Lycurgus allow marked burials only for men who died in battle and women who died in childbirth (Plutarch, *Life of Lycurgus*).

This dichotomy of the "soft, weak" female and the "strong" male pervades all aspects of the Greek understanding of gender distinctions. Since the female is weak in will and body, excess and temptation have received feminine attributes. In ancient Greece feminine deities personified strife (Eris) and madness (Lyssa), while in the Byzantine era sins acquired feminine personifications (Neophytos Enkleistos). Nevertheless, this weakness also counteracts the high potential for destruction and disruption, and the feminine is seen to be essentially *passive*, unable to exert active control over the self and often considered to be childlike.

By contrast, the male is understood to be strong in body and mind and is essentially *active* in character. As the strong body makes men fit for warfare, strength of mind gives them the potential for self-restraint, in Greek *sophrosyne*, or temperance. Thus the male is expected to control his appetites for food, drink, and sex along with overweening pride and anything else considered to be excessive (Aeschines, *Against Timarchus*). The male is in active control, stable and competent, while the female is passive but dangerous. This conception of male and female genders has changed little if at all since ancient times.

While the ideology of the strong, active male and the weak, passive female remains constant in Greek culture, there are various inversions of these roles, when men become "as women" and vice versa. In early Greece gender ambiguity is represented by Dionysus, god of wine, madness, and liminality. In the *Bacchae* he is described as fair-skinned, long-haired, and luxurious, and since he is feminine he also causes the youth Pentheus to adopt transvestitism. From the 4th century BC vase painters show Dionysus as beardless. Even greater gender

ambiguity occurs with Heracles. While ultimately masculine in his superior strength, Heracles is forced into the feminine role throughout his career. On one occasion he must serve the Lydian queen Omphale, wearing her clothes and spinning thread at her feet, while she bears his cloak and club. In *Trachiniae* (1070ff.) suffering in his death, Heracles proclaims himself turned into a woman. As there are feminine men, so too are there masculine women in the Greek tradition, notably the maenads and Amazons, both of whom represent inversions of the "natural" order of society and civilization in the ancient Greek arts.

Beginning in the Byzantine era eunuchs also upset the engendered order. Contemporary views varied on the extent to which eunuchs represented a "third sex". The secular opinion was that eunuchs were neither male nor female, but other, while Theophylaktos of Ohrid (12th century), providing Church commentary, argued that they were "neither a third sex nor a third gender; they are simply men" (S. F. Tougher, in James, 1997, p.169). Nevertheless, physical and sexual differences were recognized in eunuchs; Theophylaktos himself noted that sexual purity was their inherent benefit (ibid., p.175); they had feminine voices, glossy skin, and corpulent physiques (Hopkins, 1978, pp.193–94); and the 10th-century Arab historian al-Masudi mentioned that their armpits did not smell (Masudi, 1989, pp.345–46).

Male homosexuality in ancient and modern Greece presents its own subversion of masculine gender. In ancient Greece the man was expected to be the *erastes*, the active lover. Only the female should be able to enjoy sex passively (*eromenos*), and the male who did so was given the derogatory epithet *kinaidos*. In modern Greece male homosexuality is regarded as the union of an active, extra-masculine male and a passive, feminine one known as the *poushtis* (Loizos and Paptaxiarchis, 1991, p.227). The latter is often regarded as subhuman, being of weak moral character and without dignity (ibid., pp.227–28). A lesser, although more commonly heard, insult of the male through likening to the female is the term *malaka*, meaning "soft". It carries inherently feminine overtones, and ranges in insult from casting aspersions on the masculinity of the term's recipient to verbally placing the recipient in the role of the *poushtis*. As in most modern, Western cultures, there is no corresponding insult likening the female to the male.

In all periods of Greek history the house interior is feminine space, while the outdoors, the city or farm, is the realm of the man. The white paint used to render females in Bronze Age and classical art in contrast to the red or black pigments used to colour men has mostly been attributed to this dichotomy. In modern Greece the house is still the proper domain of the woman (A. M. Iossifides, in Loizos and Papataxiarchis, 1991, p.141), and the respectability of (unmarried) females is often dependent on claims of "never leaving the house". By contrast men are expected to remain outdoors (J. K. Cowan, in Loizos and Papataxiarchis, 1991, pp.187ff.), either working in the fields or the city, or relaxing in male company at the *kafeneion* (one humorous aspect of modern Greek village life is the social impropriety of men going home during the day; on slow days they have little choice but to remain at the *kafeneion*).

While interior space is feminine and the civilized outdoors masculine, wild, uncultivated territories are seen as feminine. In the pagan tradition this area is sacred to Artemis, and it is to these regions that the maenads flee when possessed (Euripides, *Bacchae*). Unfortunately, little such territory remains in modern Greece.

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GEOGRAPHY

Although the Greeks were the creators of the science of geography and made considerable advances in mathematical and descriptive geography, they were hampered by the lack of good technical appliances and therefore could not obtain technical accuracy. Only a fraction of the world was actually known to them, and what was unknown was the subject of a priori deduction and fanciful speculation. With the exception of mathematics and astronomy, Greek geography did not as a rule rely on other sciences as does geography today.

A considerable appreciation of topography, world order, and theory is displayed in the various Homeric descriptions, some of which are quite elaborate. The catalogue of ships in book 2 of the *Iliad* is a systematic evocation of the homeland of the Greeks. Both Homer and Hesiod conceived the earth as a round land mass surrounded by Ocean and symmetrically vaulted by heaven above and Tartarus below.

It was among the Ionians of Asia Minor that Greek geographical enquiry and writing originated, and their geographical horizons were enlarged by the expansion of their commerce and the colonization movement. In choosing names for their new settlements they repeated place names from their homeland, a habit of thinking which reflects a geographical sophistication. Not only is this practice paralleled from other parts of the world and other ages, but the practice persisted among the Greeks themselves down to Hellenistic, Roman, and even modern times.

The first recorded attempt at drawing a map of the world is that of Anaximander of Miletus (6th century BC). This map probably represented the world as a circular land mass divided into two portions, Asia and "Europe", surrounded by Ocean as Homer described it. The map was corrected and enlarged by Hecataeus (530–490 BC) who also wrote a commentary on it (including descriptions of towns and peoples as

well as geographical features), of which some fragments are preserved by Herodotus. Herodotus (traditionally 484–425 BC), the "father of history", carefully recorded his personal observations made during many years of extensive travel, thus combining the geographical and ethnographical perspectives. Following his example, almost all ancient historians regularly included geographical descriptions in their works, and many of them appreciated, though perhaps not adequately by modern standards, the impact of geography on historical events. Ephorus (*c.*405–330 BC) attempted ethnography and historical geography and devoted entire books to descriptive geography, while Timaeus (*c.*350–260 BC) dealt largely with the general geography of western Europe.

Meanwhile, the shape and nature of the earth itself was engaging the attention of the early Greek philosophers. Of the Milesians, Thales (*c.*625–547 BC) declared it to be like a log floating on water, Anaximander that it was cylindrical and that it remained steady due to its central position in respect to other heavenly bodies, Anaximenes (*c.*380–320 BC) that it was like a leaf floating in the air. By insisting that the earth had no limit below and that the air had none above, Xenophanes (*c.*570–478 BC) got rid of both Uranus and Tartarus. The sphericity of the earth was asserted by the Pythagoreans, referred to for the first time in extant literature by Plato (in the *Phaedo*), and proved by Aristotle and Eudoxus of Cnidus (*c.*400–347 BC). The last mentioned is also responsible for the division of the globe into five zones: one of torrid and two each of frigid and temperate climate. Heraclides of Pontus (388–315 BC) declared that the earth revolved round its axis, and Aristarchus of Samos (330–260 BC) believed that it might also be revolving round the sun (prior to this, the Pythagorean Philolaus had taught that the earth, together with the planets, revolved around a central fire).

The earliest surviving work of a purely geographical nature is a description of the Mediterranean coast, the so-called *Periplus of Scylax* (named, doubtless, after Scylax whom Darius sent to explore the Indus), in reality a work of the early 4th century BC. About 330 BC Pytheas of Massilia made his voyage of exploration towards the northwest as far as the northern end of the British Isles and the coasts of Germany.

At about the same time, the eastern campaigns of Alexander the Great opened to Greek research the whole of Asia as far as India, with prospects of further expansion. The work of his companions and followers served, more than anything, to establish a link between formal geography and political dominion. Moreover, through the development in their hands of the ethnographical tradition, these writers gave to geography an analytical content which, while relying on the techniques of description and cataloguing, outlasted them. Thus Nearchus' report on his voyage from the Indus received visual form in a new map by Aristotle's pupil Dicaearchus of Messana (*c.*320 BC). He was the first writer to treat physical geography in a scientific manner. Though his estimate of the earth's circumference (40,000 miles) was exaggerated, he rightly assumed the existence of a southern hemisphere. His map remained the standard of its kind for a long time.

The southern and eastern parts of India were opened up even further under Alexander's successors, as a result of Seleucid military expeditions and the trips of ambassadors such as Megasthenes. Unlike Ctesias of Cnidus (*c.*400 BC) whose *Indica* has been criticized as being overloaded with fable, Megasthenes has been commended (though not without debate) for giving a good description of the Ganges valley, of which he had personal knowledge. The Arabian and East African coasts became better known as a result of the commercial expeditions of the Ptolemies, and this improved knowledge is reflected in Agatharchides' partially extant description of the Red Sea coast (*c.*120 BC) and in the geographical chapters of Diodorus Siculus (*c.*100–20 BC).

It was Eratosthenes of Cyrene (*c.*285–200 BC) who arranged into a truly scientific system the mass of geographical material collected up to his time. He rejected the Homeric tradition and insisted on a clear distinction between fictitious wonder-descriptions and the recording of scientific fact. He created a new genre by blending mathematical and descriptive geography. His achievements in mathematics and the physical sciences on the one hand and history and philology on the other equipped him ideally for his task. He was the first to attempt to estimate the earth's circumference by a measurement of degrees carried out over a space of 15 degrees of latitude, but the imperfections of his method caused him to arrive at an exaggerated estimate (by 15 per cent or less) of 25,000 geographical miles. But the estimate which came to be accepted for many centuries to come was that of Posidonius of Apamea (*c.*90 BC) who based his calculation on the measurement of the shortest distance from Alexandria to Rhodes, and arrived at a figure of 18,000 geographical miles.

The true founder of mathematical geography was Hipparchus of Nicaea (*c.*140 BC), for he applied geometrical length and breadth to determine the position of places on the earth's surface. He also replaced the then current (Eratosthenean) rectangular and equidistant projection of parallels and meridians with a projection approximating to modern usage. He represented the parallels by segments of a circle, and the meridians by straight lines or curves in keeping with the portion of surface to be represented, drawn at distances corresponding to the actual distances on the surface of the globe.

The most important surviving Greek work on descriptive geography and ethnology is the 17-book treatise of Strabo published around AD 20. It covers topography as well as physical, political, historical, and (with less enthusiasm) mathematical geography. His object was the edification of political and military leaders. Roman conquests enabled him (as they enabled Polybius and Posidonius) to give a more accurate description of the West than his predecessors. The first two books present a wide-ranging discussion of the aims and methods of geography and review earlier writings on the subject. The remainder is devoted to regional geography. The vanished writings of many of his predecessors are known to us mainly through his criticisms.

The geographical contribution of Claudius Ptolemy (mid-2nd century AD) was the concept of the tabulation of latitude and longitude of places, which could give precision to locations. Its defects are due chiefly to the inaccuracies in his data and his preference for a priori principles over data available from recent reports (which must have included works such as the anonymous *Periplus of the Erythraean Sea*, a work probably dating from the second half of the 1st century AD and preserved, with other minor geographical works such as the epitome of Strabo, in a 9th-century Heidelberg manuscript). Though most of

Ptolemy's geographical data were not actually determined by astronomical observation, he expressed them systematically in reference to curved lines of latitude measured northwards from the equator and curved meridians measured eastwards from the Canary Islands. The special topographical features of Greece were served by Pausanias' *Guide to Greece*, while the didactic geographical hexameter poem of Dionysius Periegetes (2nd century AD) acquired so much popularity down the ages that it was translated into Latin by both Avienus and Priscian, paraphrased by Nicephorus and an anonymous writer, and was commented on by Eustathios, the 12th-century bishop of Thessalonica.

Greek geographical writings after Ptolemy largely consist of compilations and extracts, such as the *Periplus of the Outer Sea* by Marcian of Heraclea (*c.*AD 400) and the *Anonymi Geographi Expositio Compendiaria* attributed to Agathemerus. Both these works were printed by C. Müller in the first volume of his *Geographi Graeci Minores* (1855). Towards the end of the 6th century Stephanos of Byzantium compiled a dictionary known as the *Ethnica* which has preserved a great quantity of geographical information from earlier writers now lost, and which was in its turn utilized by the emperor Constantine VII Porphyrogenitos in his *De Administrando Imperio* and *De Thematibus* which include historical and ethnographic data. Stephanos's main sources were Strabo and Pausanias. Cosmas Indicopleustes, an Egyptian merchant turned monk, wrote the 12-book *Topographia Christiana* in which he made a vehement attempt to disprove the pagan theory of the earth's sphericity, maintaining that the shape of the world was the same as that of the tabernacle which Moses built to house the Covenant.

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See also **Anaximander; Astronomy; Cartography; Ephorus; Eratosthenes; Eudoxus; Hecataeus; Herodotus; Hipparchus; Pausanias; Posidonius; Ptolemy; Strabo; Timaeus**

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GEOLOGY

Our knowledge of the geological history of the Aegean region starts in earnest 200 million years ago. At that time the North Atlantic Ocean did not exist and both Africa (more correctly Gondwanaland, or Africa plus other continents) and Eurasia (Europe and Asia) were united with the North American continent to form a supercontinent named Pangea. Between the future continents of Africa and Eurasia there was a wedge-shaped ocean, named Tethys (after the daughter of the earth goddess Gaia), which opened out to the east, where it joined the other oceans. The southern part of Tethys was a wide, shallow tropical sea where limestone was being deposited, rather similar to the Bahama banks today. Much of the grey limestone seen today in Greece formed at this time. Low islands on this platform were later to form parts of the mountains of Macedonia, Thrace, and southwestern Turkey. The northern part of Tethys was a deep ocean basin that abutted mountains in southern Eurasia. This state of affairs changed when the North Atlantic Ocean began to form about 190 million years ago.

The Atlantic Ocean started to open from the south and a great tear extended northwards. Africa had to rotate anticlockwise to accommodate the new ocean and the Tethys Ocean started to close up. At the same time, between the wide platform where the limestone was forming and the core of the African continent, a new ocean was opening up, later to become the Mediterranean Sea. These two processes combined to force the limestone platform, with its islands and troughs, northwards towards Eurasia. The deep ocean floor could bend and descend into the deeper parts of the interior of the earth, but the islands and the platforms were too light to go down. Instead they were piled against Eurasia to form chains of mountains. The overall convergence between Africa and Eurasia slowed down after the Arabian peninsula hit Eurasia, but continued expansion of parts of the Mediterranean sea floor continued to force parts of the crust northwards, raising up further mountain ranges. This overall convergence continues today, which is why the Aegean region is so mountainous.

Within the overall Mediterranean context of convergence and compression there are regions where crustal stretching was and is important, such as parts of the Aegean. During crustal stretching the surface of the earth cracks along faults. Parts of the crust descend to form tectonic valleys called grabens (as opposed to erosional valleys formed by rivers) which can also extend under the sea, the intervening blocks remaining as mountains, peninsulas, and islands (horsts). Expansion was directly north–south in Asia Minor, giving major east–west grabens now occupied by rivers such as the Gediz and Büyük Menderes in Turkey. In the Peloponnese and southern Greece expansion produced northwest–southeast grabens, such as the Gulf of Corinth and the Euboean straits. In between these areas stretching was more complex, producing a series of isolated blocks, the Cyclades.

Mention should be made of an unusual event that occurred about six million years ago: the Mediterranean sea almost completely dried up. This happened when tectonic forces closed up the Straits of Gibraltar. Rivers flowing into the basin, principally from the Black Sea, were insufficient to maintain sea-level

and the sea dried out, except for a few saline lakes resembling the modern Dead Sea. There may even have been a salty waterfall at Gibraltar, also feeding the lakes. Evaporation of water from the lakes produced deposits of gypsum (alabaster) and other minerals, seen today in Crete and elsewhere.

The climate of the last 1.6 million years has been marked by dramatic fluctuations. Within this period, loosely called the Ice Age, the climate has been generally cool, with warmer conditions typically lasting for about 10,000 years every 100,000 years. During the last glacial period, about 130,000 to 10,000 years ago, the climate of the Aegean was moist and cool. There were glaciers on the highest mountains of the Greek and Turkish mainlands and the island of Crete. Sea level was considerably lower that it is today, by about 120 m, and hence the river-beds were steeper resulting in more rapid erosion. Mountains were deeply incised, and broad, flat valleys were developed. The climate was coldest about 20,000 years ago. Warming began rapidly about 10,000 years ago, but by 8000 years ago the climate was more stable. Since then variation has been less extreme, especially during the last 4000 years.

Global climatic warming melted the glaciers and sea-level rose, stabilizing close to its present level about 6000 years ago. The sea invaded estuaries, drowning many Palaeolithic sites on the old, fertile river plains. The deep, protected bays that formed were useful harbours in antiquity, but many had a short life (e.g. Miletus and Ephesus). Sediments washed down by the rivers were deposited in the bays, commonly filling them almost completely (e.g. Thermopylae and the gulf of Malia). Agriculture increased erosion and hence aided this process. It should be noted that earthquakes can also produce local changes in sea-level that are superimposed on the global sea-level rise (e.g. Phalasarna and Western Crete).

Geological history is recorded by rocks – sedimentary, metamorphic, and igneous. Sedimentary rocks form on the surface by the accumulation of rock fragments (e.g. sand, mud), biological material (e.g. shells, bones, plant material), or by crystallization of minerals from water (e.g. gypsum, salt). Most sedimentary rocks form under the sea or in lakes. Loose sediments are transformed into hard rocks when minerals crystallize from the water between the grains and cement them together. This process can continue after a rock is quarried, making the rock harder as it dries out. Cementation of sediments commonly occurs on beaches, making "beachrock", which is common throughout the Aegean. Accumulation of the finest rock particles makes clay. There are many types of clay and not all are suitable for making pottery. However, good pottery clay is commonly formed in basins that also contain lignite, a low-grade coal (e.g. Corinth).

When rocks are piled on top of each other, for example during convergence, or in a sedimentary basin, those at the base are heated up and subjected to increased pressure. This is because the temperature increases with depth in the earth by an average of 30°C per kilometre. Many of the minerals that make up the rocks are not stable under these new conditions and will either recrystallize to form larger crystals or transform into new minerals, a process called metamorphism. The most common metamorphic rocks in Greece are marble, schists, and serpentinite, formed respectively from limestone, mud-rocks, and peridotite. Some areas of metamorphic rocks, such as the Cyclades, are considered to be the deeper equivalents of sedimentary rocks elsewhere. Others, like the Menderes massif south and east of Izmir, have a much more complicated history, with much older rocks and several cycles of metamorphism. Sometimes the rocks can become so hot that they melt to form plutonic rocks such as granites.

The geological structure of the oceanic crust is quite different from that of the continents – it is almost completely made of igneous rocks, that is those that were originally molten. Its base is dominated by plutonic rocks such as peridotite and gabbro that solidified deep in the earth, whereas the top is made of basaltic lavas that were erupted underwater. The lavas are in turn commonly covered by chert and limestone. Although there is no true oceanic crust in the Aegean region today, convergence of Africa and Europe has forced former parts of the oceanic crust up on to the land. The peridotites have been converted into the green or black rock serpentinite.

There are many volcanic rocks in Greece and western Turkey, mostly formed during the last 20 million years, and the activity continues today. These rocks formed when the sea-floor was thrust down deep into the earth. As the temperature rose, part of the rocks melted and the liquid made its way to the surface in volcanoes. Volcanic activity is now restricted to Santorini (ancient Thera) and Nisyros, but in antiquity Methana and Melos were active for short intervals. There have been many different types of eruption. The largest was the "Minoan" eruption of Thera in 1650 or 1450 BC – almost 30 cubic km of volcanic ash was erupted. Since then activity has mostly been non–explosive, with the eruption of lava flows. On Nisyros volcanic activity has been marked by steam explosions with no lava or true volcanic ash.

Most metallic ore deposits, such as those of gold, silver, lead, iron, copper, and tin, are precipitated from hot watery fluids that circulate in the crust. These fluids start as surface water that descends into the crust. There it is heated, and metals, and other elements, dissolve in the water. They are precipitated as minerals when the water rises and cools. The heat necessary to drive circulation is sometimes associated with metamorphism, the emplacement of plutonic rocks such as granite or volcanism. Circulation of sea water into the oceanic crust also produces deposits of copper and other elements where these fluids vent on to the sea floor (e.g. the Troodos mountains of Cyprus).

The most common rocks in the Aegean region today are limestone and its metamorphic equivalent marble. These rocks are more resistant to erosion than other types of rocks and tend to form the hills, in the absence of tectonic movements. Paradoxically, both limestone and marble are soluble in rain water and prolonged erosion gives rise to a characteristic landscape called *karst*, after a region in Croatia. In these regions most drainage is not on the surface in valleys, but instead rain and snow-melt drain directly into swallow-holes (sink-holes). The drainage basins start as small conical depressions and can become quite large, with flat bottoms (there are many in Arcadia), Every swallow-hole is connected to a system of caves or fissures, that tend to be enlarged by continual solution of the rock. The springs can debouch many kilometres away, in some cases under lakes or the sea (e.g. the gulf of Argos). In many areas the fissure and caves system can store sufficient water for the springs to be perennial. Although *karst* caves are formed by solution of rock, precipitation of limestone from waters percolating into caves forms stalagmites and stalactites. This can only occur when

there is little flow of water through the cave. A similar process deposits travertine around many *karst* springs. However, much travertine was quarried in antiquity.

Soils form by weathering of the underlying rock. Much of this weathering may have happened during the last glacial period when the climate was wetter, but glaciers were only on the peaks of the mountains. Limestone or marble gives a characteristic red soil called *terra rosa*. Although fertile, this soil is usually too thin on the hillsides for successful agriculture. In antiquity this soil was processed to give a red clay. The soft sediments that fill the grabens weather easily and tend to yield fertile soils. The best soils form on marls – sandy, clay-rich limestones. Soils washed from the hills accumulate in the valleys to form alluvial soils. The abundance of water and the renewal of these soils by material washed from the hills during storms has made these areas very productive. Drainage in antiquity and recently has greatly increased the availability of these soils (e.g. Lake Copais).

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See also **Climate; Earthquakes; Volcanoes**

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GEOMETRIC PERIOD *c.*900–*c.*700 BC

The Geometric period of ancient Greece is normally understood to last from *c.*900 to *c.*700 BC, taking its name from the "geometric" style of pottery decoration found throughout the Greek world at that time. This style is characterized primarily by the use of rectilinear motifs in various combinations; while it may also include the pictorial representation of both animals and humans, especially in the 8th century, these also follow the prevailing artistic conventions and appear obviously "geometric" in form.

The Geometric period can be said to have begun in Athens, where the characteristic style first emerged *c.*900 BC, evolving from its predecessor, the Protogeometric, which itself developed there around the middle of the 11th century BC. The pottery decoration follows a definite stylistic evolution, so that the period can be divided into three phases, the Early, Middle, and Late Geometric (EG, MG, and LG respectively), each of which may be further subdivided into two phases. The traditional dates for these phases are: EGI 900–875 BC; MGII 875–850 BC; MGI 850–800 BC; MGII 800–760 BC; LGI 760–735 BC; and LGII 735–700 BC. A word of caution is needed, however, when referring to these dates since, strictly speaking, they apply only to Athens. In fact, the whole chronological framework of the period has recently come under attack due to the rather tenuous nature of the evidence supporting it; a heavy reliance has been placed on the stylistic development of the pottery, taken in conjunction with historical accounts, since other methods that might be expected to yield more precise information, such as radiocarbon dating and dendrochronology, have not proved particularly useful. Some confirmation for the dating scheme accorded to the pottery has been possible, for it has occasionally been found in association with Egyptian objects, particularly scarabs, which are datable to the reigns of individual pharaohs. Other information has been provided by relating the ceramic evidence to the traditional foundation dates of the Greek colonies in Italy as given by later writers such as Thucydides, but this is of limited value since it applies only to the last 50 years of the Geometric period; other historical events noted by ancient authors, such as the first Olympiad in 776 BC, have also been used, but in general there are very few fixed chronological points. Given this lack of corroborating evidence, some recent scholarship has suggested that all dates for the early Iron Age, including those for the Geometric period, should be lowered, but this view has itself met with much criticism and has failed to win general approval.

Dating for the various phases of the Geometric period also differs from place to place. The phases in Geometric decoration found in the Argolid and Corinthia match those at Athens very closely in development and date, but further afield the pace of the acceptance of change appears to have been somewhat slower and there is thus often a time lag in comparison to Athens. In Laconia and west Greece, for instance, the Protogeometric appears to have continued to the middle of the 8th century BC, while in cast Greece the Early Geometric phase is very difficult to assess, and in Thessaly it is impossible to distinguish the end of the Late Geometric phase. Similar problems and uncertainties are also apparent in other areas, making it clear that the history of the Geometric style must take into account significant regional variation.

When the Bronze Age palace civilization came to an end at some point in the 12th century BC, all the components that had made that civilization what it was collapsed; the Greek world entered a new phase of its history, the Iron Age. The early part of the Iron Age (*c.*1200–900 BC, a period often also called the Dark Age) has traditionally been viewed as a time of poverty, isolation, and depopulation, and even though this picture may be more representative of our own relative lack of knowledge about the period, there is also some truth in the traditional view that the Greeks had, in a sense, to rebuild their civilization. By about 900 BC, however, when the Geometric period begins,

some degree of stability appears to have returned. The Geometric period was thus a time of great change, a time when the Greeks finally overcame many of the difficulties associated with the so-called Dark Age, and a time of rebirth characterized by the appropriately named Greek renaissance of the later part of the 8th century BC (LG).

A great deal of information about the period comes from the graves that have been found all over Greece. From the Kerameikeos and Areopagus areas in Athens, for example, comes a wealth of information about burial customs and about the pottery used in those burials. Generally cremation was employed, the bodies being burned on a pyre and then placed in a pot which was itself buried in a pit along with various possessions and gifts. The ash urns were different for men and women, and the goods contained in each also seem to have been gender-specific, weapons for instance in male burials, jewellery in female burials. Customs, however, varied at different times, and children were normally inhumed, often with their toys, while for a short time in the Late Geometric period, inhumation was also adopted for most adults. It is at this time that the very large Dipylon amphorae and kraters were used in Athens as grave markers. These pots, named after the area of the cemetery in which they were found, were all made in the same workshop and bear figured scenes representing the *prothesis* (lying in state) and *ekphora* (funerary procession). For many, these pots are the epitome of Greek Geometric art. Burial customs also differed in other areas of Greece, with some regions preferring inhumation, others cremation, while specific practices varied within these two categories. Interpretation of the burials and their contents has thus provided some understanding of social and economic organization among different individuals and groups at this time.

It was during the Late Geometric period, however, that the most significant changes occurred. This is the era of the Greek renaissance, so called because the substantial developments that took place at that time suggest a rebirth after the Dark Age. Some scholars take the very sharp rise in population that occurred in the 8th century BC as the catalyst provoking all the changes; consequent overpopulation, they argue, led to increased pressures on land and resources that in turn led to a growth in political centralization characterized by the emergence of the polis (or city state) ruled by aristocracies. Warfare among these newly established Greek states was also a very common occurrence in this period.

Essential to this renaissance are the contacts with the outside world which, although never entirely lost in the previous centuries, are now seen on a much grander scale. These contacts themselves can partly be viewed as the result of some of the pressures facing the Greeks in the 8th century BC, pressures caused by such factors as overpopulation, a shortage of good land, a need for access to more natural resources, and political dissatisfaction. Partly to alleviate some of these troubles and to find solutions to them, a great colonizing movement began *c.*750 BC. The Greeks from some of the most developed (and hence often most troubled) states, such as Corinth, Megara, and Euboea, sent colonies to south Italy and Sicily. In the east, trading centres were established at places such as Al Mina on the Levantine coast, and trade was extended to other areas that included the Near East, Asia Minor, and Egypt. These eastern contacts in particular would profoundly affect Greece.

In the religious sphere, change is also very noticeable, especially in the sanctuaries. Although some of these existed earlier in the Geometric period, archaeological evidence indicates that there was a strong increase in the level of activity taking place at them by the 8th century BC; masses of votive offerings have been found, particularly pottery and, by the later part of that century, metal goods also appear. By that time temples to the gods were also being constructed, most of rather modest construction, but a few of massive size.

Contact with the cast also brought about the adoption of the alphabet, knowledge of which was obtained through the Phoenicians and adapted somewhat by the Greeks to suit their own language. Literacy had finally returned after an absence of more than 400 years. This was a monumental achievement and among its earliest manifestations are the great Homeric epic poems, the *Iliad* and the *Odyssey*, soon followed by the works of the didactic poet Hesiod.

The adoption of the polis meant that, in this period, the Greeks never developed a real sense of nationality as we would think of it, yet they certainly possessed a great sense of national consciousness and pride, a Hellenism that partly manifested itself in the growth of the great Panhellenic sanctuaries, such as Olympia and Delphi. Indeed, their renewed contacts with the outside world helped to foster their identity – they were Greeks, the others were barbarians. The transformations of the 8th century BC led directly to the significant achievements of the archaic period that followed the Geometric.

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See also **Alphabet; Burial Practices; Colonization; Pottery**

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GEORGIA

The land of Georgia occupies the southern slopes of the central section of the main Caucasus range. To the west it is bounded by the eastern coast of the Black Sea. To the cast it stretches to Azerbaijan in the direction of the Caspian Sea. To the south it is bordered by Turkey and Armenia, with a historical claim to a substantial portion of northeast Turkey (the Tao-Klarjeti of the Georgian tradition).

The name Georgia has encouraged the idea that this land was so named by the Greeks on account of its agricultural resources (*georgia* means "farming" in Greek). (Georgians use an entirely different term, *sakartvelo*, and term themselves *kartvelebi*.) However, the apparently Greek name is now taken to be a derivation from an Iranian root, *Gurj*. Greeks in antiquity did not use the term Georgia, but referred instead to western Georgia as Colchis (Byzantine Lazike) and to eastern Georgia as Iberia. The existence of these two Greek names reflects the principal geographical division within Georgia, caused by the so-called Surami ridge. As a result of this ridge, western Georgia looks across the Black Sea towards Europe and the Aegean, while eastern Georgia looks to Iran and Central Asia.

Greek knowledge of western Georgia is firmly attested by 700 BC in the poetry of Eumelus and Hesiod. The myth of the Argonauts, which was known to Homer, gave Colchis a particular significance in Greek culture from earliest times. However, according to archaeological evidence and later literary sources Colchis was not settled by Greeks until about 550 BC. From the 4th century BC Greek texts mention the towns of Dioscurias (modern Sukhumi), Guenos (near modern Ochamchira), and Phasis (near modern Poti) as Hellenic communities. In particular, Dioscurias and Phasis are said to have been founded by Greeks from Miletus, in the latter case led by one Themistagoras. The archaeological evidence also points to a significant Greek presence elsewhere on the coast of Colchis, at Eshera (north of Sukhumi), at Pitchvnari (near Kobuleti), at Tsikhisdziri, and perhaps in the environs of Batumi, which the Greeks of antiquity named Bathus Limen ("deep harbour"), whence its modern name.

Greek influence spread up the numerous rivers of Colchis into the hinterland, but not across the Surami ridge into Iberia. When Hellenic culture reached eastern Georgia it came with the Seleucids, who claimed Iberia as part of their imperial sphere. In Iberia Greek culture met not only local culture but also strong influences from further east. In later centuries Iberia was to be the diplomatic and military battlefield upon which the Byzantine Greeks fought the Persian empire, especially in the 4th to 7th centuries AD. Iberia's conversion to Christianity in about AD 337 helped the Greek cause, but Arab conquest in the mid-7th century was conclusive. Ironically, the loss of Iberia followed hard upon the famous Byzantine victory at the siege of Tiflis (modern Tbilisi), captured by the forces of the emperor Herakleios in 627. However, Iberians continued to exert influence at Byzantium: in the 10th century the Iviron monastery was established on Mount Athos by St Evthymios and his father.

By contrast, western Georgia had become an integral part of the Greek world, albeit at its periphery (e.g. Plato, *Phaedo* 109b). Colchis was known in classical Athens as a mercantile destination (Aristophanes, *Holkades*), providing a famous type of linen which rivalled that of Egypt, according to Herodotus (2. 104–05). When Xenophon's 10,000 reached the Black Sea at Trapezus (modern Trebizond) in 400 BC, he saw the potential of Colchis and apparently contemplated settlement in the region of Phasis (*Anabasis* 5. 6. 36). In the Politic empire of Mithridates VI Eupator, from about 100 BC, Colchis was a principal reservoir of resources, providing quality timber and all else needed for shipbuilding. The Greek geographer Strabo mentions that a member of his family had been Mithridates' viceroy there (11. 2. 18).

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GLASS

Glass is a man-made material of great versatility. It is made by melting together three main ingredients: soda, lime, and silica. In antiquity silica came from sand that also contained the lime needed to make the glass water-resistant, and soda came either from natron, which occurs naturally in Egypt, or, in the east, from saline plants found in the deserts and marshy areas. If nothing was added to the basic mixture, glass was naturally bluish-green; coloured glass was made by adding specific metal oxides and varying the furnace conditions. Colourless glass, akin to modern crystal glass, used manganese or antimony as decolourizing agents. It seems likely that in antiquity glass itself was made from the raw materials in only a few places, and shipped around as ingots to different glassmaking centres.

The first glass objects known are from Mesopotamia and date from around 2500 BC. A technological breakthrough some

1000 years later led to the production of the first glass vessels. This was the invention of core-forming, whereby glass was formed around a rod covered by a core of dung and clay mixed with a little water. Decoration was added by trailing soft glass of different colours around the body and combing it into patterns with a pointed tool. After subsequent reheating the shoulders, neck, and rim were formed and any handles added. The core-covered rod was finally removed after the vessels had been annealed (placed in a warm place apart from the actual furnace to cool slowly). The first vessels made by this method seem to have been produced in northern Mesopotamia around 1500 BC. The glass industry was born in Egypt not much later, but core-formed vessels were not produced in any great numbers before the time of Amenhotep III (1390–1352 BC). By 1450 BC Mesopotamian glassmakers were also forming vessels of mosaic glass, made by fusing together slices of monochrome glass or multicoloured canes that were then shaped around a core or, for open vessels, slumped over a form (positive mould). Early Mesopotamian and Egyptian glassmakers were also responsible for a great variety of objects, including pendants and beads of many different varieties. Diplomatic correspondence from the royal archives of el-Amarna, the new capital of Egypt established by Akhenaten (1352–1336 BC), mentions consignments of raw glass being sent from lyre (modern Lebanon) and neighbouring cities. This speaks already for the importance of this region, credited by the Elder Pliny (1st century AD) with the invention of glass. The same area (the Levant) was responsible for a series of core-formed vessels.

Glass became known to the Greeks in the Late Bronze Age when documents in Mycenaean Greek call it *kyanos*. Imported Egyptian core-formed vessels have been recorded, principally from Cretan sites of the 14th and 13th centuries BC, while from mainland Greece, notably Mycenae and Kakovatos, come some Mesopotamian beads and pendants. The first items evidently made in Greece were a bowl with indented sides similar to metal and stone vessels, a tiny bull figurine, and a hilt for a distinctly Mycenaean type of sword, all of translucent blue glass perhaps of Mesopotamian origin (all three pieces are now in the National Archaeological Museum, Athens). Gaming pieces may also have been made locally. A series of ornaments is exclusive to Mycenaean Greece and evidently made there. Normally of translucent blue glass with flat backs and suspension holes, they occur in many different shapes, the most common being rosettes and spirals, the latter perhaps representing locks of hair. Most date from 1400 to 1200 BC. Moulds of stone, usually steatite, have been found on several sites, suggesting that there were a number of manufacturing centres. Ornaments of gold foil, quite often found with the glass examples, could also have been made in these moulds, the gold and glass sometimes fitting together. Some of the blue glass used by the Mycenaeans evidently came from Egypt, as illustrated by cobalt-blue glass ingots of evidently Egyptian origin that were discovered in the wreck of a merchant ship on its way to Greece that sank off the coast of southwest Turkey at Ulu Burun towards 1300 BC. Very similar ingots have been found at Tell Brak in northeast Syria (Mesopotamia).

In the earlier Iron Age the Greek contribution to the glass industry was a remarkable series of core-formed vessels, initially made principally on the island of Rhodes between about 550 and 400 BC. This Rhodian production was evidently inspired by Mesopotamian core-formed vessels found in 7th-century- BC contexts on the island. These may have been imported or possibly made by migrant Mesopotamian glass-workers. The Rhodian vessels were designed as containers for perfume or scented oils, which were Rhodian products of the time, and take their shapes from the contemporary Greek repertory of vases in pottery and metal. The most common body colour is translucent dark blue, but some are opaque white, brown, red, or olive green. Decoration usually consists of opaque orange, yellow, white, or turquoise trails combed into zigzag, festoon, or feather patterns. Traded far and wide, initially perhaps in the hands of Phoenician seafarers (residents of modern Lebanon), they reached every major site in the Mediterranean and also travelled as far as the Black Sea. Everywhere they are concentrated in areas of Greek commercial activity.

The Rhodian factories ceased production at the end of the 5th century BC and more than two generations passed before core-forming was revived in Mediterranean workshops. This occurred some time after 350 BC, coinciding with the conquest of the Persian empire by Alexander the Great. It marked the beginning of an era of Macedonian supremacy, and it seems likely that some factories were located in Macedonia and supplied northern Greece and Russia. Fewer vessels were now produced and many of the forms were more massive than before. New shapes included jars (*stamnoi*), three-handled flasks (*hydriskai*), and bottles (*unguentaria*).

By the 5th century BC the Greeks had two names for glass, one, *lithos chyti*, meaning "poured (or melted) stone", an apt description of the core-formed vessels. The second, *hyalos*, signifies "transparency" or "clarity". This could refer to 5th-century BC ornaments of clear yellowish and greenish glass in the shape of three-pointed stars and parts of palmettos and flowers, cast in clay moulds, and found in the workshop of Phidias at Olympia (now in the Olympia Museum). They were evidently drapery decorations, and different-coloured glass insets were used to enhance contemporary Greek architecture.

The second group of core-formed vessels has already brought the story into the Hellenistic period. During this time the glass industry generally flourished as never before, and the Greek world seems to have played a part in production. Excavations on the island of Rhodes revealed the presence of a glass factory operating in the late 3rd or early 2nd century BC making beads, and also vessels formed of two clear glass bowls fitted one inside the other with patterns in gold leaf attached to the outside of the inner bowl, thus appearing "sandwiched". The Rhodian finds are fragments, but more complete sandwich gold-glass bowls with known findspots come from Italy (four examples), Gordium (Asia Minor), and Olbia on the Black Sea. Rhodes may have been a centre of production of these magnificent vessels, but this is still debated. The Hellenistic period in glassmaking was marked by the production of fine vessels of mosaic glass, and finds from the Greek world show the familiarity of the people with such glasses, although it is still not certain where they were made. From graves at Palaikastro, near the town of Karditsa in Thessaly, come two very fine "bottles" of a particularly beautiful type of mosaic glass that imitates agate, a semi-precious stone, showing spiral patterns of white and purple in a brown ground. From another grave came a similar bottle of clear glass. These probably all date from the 2nd to the 1st century BC, and can be seen in the National Archaeological Museum, Athens. This was

the time that a new type of tableware made by the slumping process was being produced in profusion at sites on the coast of Syria and Palestine. Bowls of various shapes were made, usually hemispherical or conical with pointed bottoms and decorated on the inside with grooved lines. Initially they were of clear greenish or brownish or colourless glass, and later sometimes of green, amber, blue, or wine-coloured glass as well. Known as "grooved bowls", they were made with little variation for nearly 100 years between about 150 and 50 BC.

Around 80 BC a ship was wrecked near Anticythera off the southwest coast of Greece. Its cargo included colourless and mosaic glass vessels (National Archaeological Museum, Athens). Among the colourless vessels were two glass *skyphoi* (wing-handled cups), a bowl with bossed decoration, another of the fluted series, and one of similar shape with a finely executed engraved design. Bowls of mosaic glass, on applied ring bases, were hemispherical or had outward-curving sides, new shapes in the repertory. The mosaic pattern included spirals and a network pattern that had been introduced earlier, but new at this time was a true striped effect achieved by fusing together canes of different colours laid side by side (coloured band glass). Similar glasses to these have been found on the island of Delos (and now in the Delos Museum) in a context dating from 125 to 69 BC, together with deep "grooved bowls" of bright opaque colours, known in later contexts of the early to mid 1st century AD at Knossos in Crete (Herakleion Museum). Three small workshops making glass beads were also discovered on Delos.

Whether any of the glasses just described were actually made in Greece is perhaps unlikely, but probably of Greek or specifically Cretan manufacture were cosmetic boxes. These are made of thick glass, green, yellowish-brown, or colourless with a greyish tinge, and most with known findspots come from Crete. In form they compare rather loosely with marble and pottery examples, and the glass is similar to that used for finger-rings, some of which come from 3rd-century BC contexts. The glass cosmetic boxes are perhaps of the same date. The lid was made by the slumping process, while the box was evidently mould-pressed, using two shaped "forms" between which the molten glass was compressed, before being cooled and then cut, ground, and polished. Much of the tableware produced in Italy from the time of Augustus (see below) was made this way.

The discovery that glass could be blown revolutionized the industry. The first evidence for glass blowing comes from a collection of waste dumped in the Jewish quarter of the old city of Jerusalem around 50 BC (Israel Museum, Jerusalem), but blown-glass vessels did not become the norm for another 75 years. Thus in the late 1st century BC and earlier 1st century AD blown vessels are found alongside non-blown examples at Corinth (Corinth Museum) and in a grave group from Macedonia (National Archaeological Museum, Athens). The grave group includes five blown unguent flasks and a slumped shallow thin-walled bowl of a type made from about 25 BC to AD 25 in both brightly coloured and natural-coloured glass and recorded from all over the Mediterranean world. Many fragments of such bowls have been recorded from Knossos in Crete, but they were perhaps imported from Italy, where factories producing a fine series of tableware of monochrome brightly coloured glass and other vessels of intricate mosaic glass were certainly established in the time of Augustus (27 BC–AD 14). They seem to have supplied the Greek market, and to some extent to have reached Greek cities on the coast of Asia Minor as well. The same Italian factories were in part responsible for a series of bowls, often of mosaic glass, with evenly spaced ribs on the outside, known as "pillar-moulded bowls". The type seems to have originated in Syro-Palestinian glasshouses around 25 BC alongside, and in part preceded by, a series with less evenly spaced ribs. Both series are known from the island of Crete, but are rare on the Greek mainland.

Early blown glass, principally small bottles for perfume or oil, is known from the Greek city of Priene on the west coast of Asia Minor and the Greek island of Siphnos, as well as the sites noted above, suggesting that in the age of Augustus the blowing technique was rapidly being adopted in many parts of the Roman empire. Vessels from both eastern and western glasshouses also reached the Greek world in the 1st century AD and, since certain types are common to both areas, it is not always easy to decide their origin. Mould-blown glasses, first made around AD 25, mostly came from Phoenician and Palestinian glasshouses. Typical Italian types such as a large jug with embedded blobbed decoration from one of the Greek islands (British Museum, London), and small ribbed cups with coloured trails found in Crete, were also imported. Hemispherical cups, some with cut and abraded decoration, known from various sites in the Greek world, may also have come from Italy. An enamelled bowl from Greece (British Museum, London), which differs from the typical north Italian group in having a star rather than a rosette on the bottom, is perhaps from an eastern glasshouse that produced enamelled flasks known from sites on the Black Sea and on Cyprus.

By the end of the 1st century AD, when most glass vessels were blown and factories already established in the Syro-Palestinian area and in Italy increased their production, new glasshouses producing utilitarian glass vessels were established all over the Roman empire, no doubt including Greece, though actual evidence for Roman glassworking sites has yet to be revealed. Line glassware was still imported. From Italy may have come tall beakers with facet-cut decoration recorded from Crete in late 1st- and early 2nd-century-AD contexts, and Italy may also have been the source of mould-blown square (and cylindrical) bottles that were produced from around AD 70 until the late 2nd or 3rd century, as well as jars, which were later used as cinerary urns, between AD 50 and 200. Bottles of the late 2nd century AD from Thermopylae and Corinth have short necks, restricted at the junction with the body, and cracked off rims, and are decorated with fine polychrome trailing. They may have come from a Syro-Palestinian workshop responsible for a series with trailed decoration of flowers and birds. A polychrome bottle of similar shape, but with a taller neck, from Karditsa in Thessaly is decorated with embedded yellow and white trails, and perhaps came from Italy where bottles of this type, but with cut decoration showing Italian landscapes, date from the later 3rd and 4th century. To the same years belong "pipette-shaped" bottles of a type current in both East and West and found on the island of Crete.

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GODS AND GODDESSES

Ancient Greek religion was not only polytheistic, but also multifaceted, in the sense that there was an evolution in the notion of divinity. Even within the frame of specific divinities certain features changed with time. The crystallization of our notion of the gods and goddesses derives mainly from archaic poetry, and particularly from the Homeric and Hesiodic epics. The ambiguities and contradictions that are observed in the mythic narratives explain the multifaceted character of the ancient gods and goddesses. The ruling divinities were the Olympians, so called from Mount Olympus, which was believed to be their residence. Before them were some primordial beings. In Hesiod's *Theogony* the first beings were Gaia ("earth"), Chaos, Tartarus, and Eros. In the Hesiodic account the world was created essentially by Gaia, who gave birth to Uranus ("sky"), and then, mating with him, produced the 12 Titans, the Giants, and the Cyclops. Some myths are about the fear of losing power and the eventual succession among different generations of divine creatures. Uranus kept his children inside Gaia because he was afraid that they might take his power. Gaia, in order to be liberated from such a burden inside her, made a sickle, which their son Cronus bravely used to castrate his father. In the Hesiodic version the goddess Aphrodite was born out of Uranus' castrated genitals, which fell on the sea's foam. In Apollodorus' version Cronus was persuaded by his mother to kill his father because Uranos had overthrown the Cyclops, the first children he had with Gaia. Cronus, in his turn, swallowed his children out of the same fear that his own father had. He was defeated by his son Zeus, who after the Titanomachy and the Gigantomachy acquired supremacy. Cronus and Rhea had six children, three sons and three daughters: Poseidon, Hades, Zeus, Hera, Hestia, and Demeter.

The notion of 12 gods and goddesses was established early in the consciousness of the Greeks, but the catalogue of them varies. The most common list of the 12 consists of the following: Zeus, Hera, Poseidon, Demeter, Apollo, Artemis, Athena, Hermes, Ares, Aphrodite, Hephaestus, and Hestia. There were local variations according to which Hades or Pluto takes the place of Hermes, or Dionysus takes the place of Hestia. Besides the principal gods, there is also a group of minor deities such as the Graces, the Muses, Eros (not the Hesiodic primordial creature, but rather the son of Aphrodite), Hebe, Eileithyia, Hecate, Pan, the Nymphs, the Horae, Themis, the Moirae, Nemesis, the Erinyes, and others with different degrees of importance. It is uncertain how many were regarded as deities and with what specific role, and how they were worshipped. A general feature that is often pointed out regarding ancient Greek religion is anthropomorphism. Although they were believed to have power over nature and humans, the deities were subject to mortal needs such as food, drink, and sex. Political behaviour was not unknown among them and the Homeric epics present the gods as taking sides and making enemies even among their fellow gods. There is no representative of absolute perfection or absolute evil, but they were immortal, even though subject to mortal feelings as well.

Zeus was thought to be the father of gods and men. The expression "Zeus father" (Zeus *pater*) is equivalent to the Latin Jupiter. Besides the myths of succession that are associated with him, there are other myths related to his birth, the most common being the Cretan one. According to this myth the child was hidden in a cave on mount Ida so as not to be swallowed by his father, Cronus, and was nourished by the goat Amaltheia, while the Couretes danced around him and with their noise drowned his cries. Zeus was the god of weather and the one who makes thunder and lightning. Many of Zeus' Homeric epithets are related to his control of natural phenomena. He was notorious for his erotic liaisons that made him the father of many gods and heroes. By Hera he had Ares, Hebe, and in some versions Hephaestus and Eileithyia. By Leto, a Titaness, he had Apollo and Artemis. By Maia he had Hermes and by Semele, a mortal, Dionysus. In Homer he is also the father of Aphrodite by Dione. He gave birth to Athena, on his own, by swallowing her mother Metis. He was the father of Persephone by Demeter, of the Moirae, the Horae, the Graces, and the Muses. The most famous heroes claimed their descent from him: Heracles was his son by Alcmene, Perseus by Danae, the beautiful Helen by his daughter Leda. His many epithets are revealing of different emphases on various aspects of his divine identity in the mind of his worshippers. He is Zeus Herkeios, family protector, and also the protector of the domestic hearth (Ephesteios). As the god who soothes, especially at the end of the winter, he is worshipped as Meilichios. Freedmen used to worship Zeus Eleutherios in a sanctuary in Athens. As the ultimate lawgiver and bearer of justice he is Zeus Themistios.

Hera, daughter of Cronus and Rhea, was the sister and wife of Zeus. She is the feminine representation of natural forces, and the goddess of marriage and protector of women. In literature she is often depicted as the jealous wife who is constantly after her husband's lovers and offspring by them. In the Homeric *Hymn to Apollo* she delays the birth of Apollo and Artemis. Her persecution of Heracles is a beloved theme in literature and art. She is often referred to as Argeia, since Argos is one of the most ancient places of her worship, or as Zygia due to her patronage of marriage.

Demeter is another goddess closely connected with femininity, and particularly maternal powers. The evident etymology of her name (''earth-mother'') has led to research into her relationship with the period of matriarchy in Greece. The main myth in which she features as a central figure is that of the quest for her daughter Persephone, who had been abducted by Hades. She finally finds her and makes the arrangement that Persephone will stay for some months with her husband in the Underworld, the mourning period for Demeter and winter for mankind, and for some time with her mother on earth. Demeter was worshipped extensively at Eleusis, in the Eleusinian Mysteries in autumn time. The Thesmophoria was a widely celebrated female festival.

Poseidon is most commonly known as the god of the sea. Some of his Homeric epithets refer to him as the ''earth-shaker''. He was married to Amphitrite, but like his brother Zeus fathered many heroes. Some of his sons have monstrous features, like the Cyclops Polyphemus. He competed with the goddess Athena for the patronage of the city of Athens and lost. Athena, mostly known as the goddess of wisdom and prudence, is a multifaceted figure. She is the personification of feminine virginity combined with a warrior's virility. She was born from Zeus' head after he had swallowed her mother Metis; she therefore incarnates the *metis* (cunning intelligence) of her mother. Athena is an active participant in many myths due to her role as the protector-goddess of many heroes, such as Odysseus, Heracles, Perseus, and others. In Homer she fervently protects the Achaean side in the Trojan War, and accompanies her favourite Odysseus in the *Odyssey*. One of the most glorious ancient festivals, the Panathenaia in Athens, was dedicated to her. In Hesiod she is the one who teaches the art of weaving to Pandora, the first woman. One of her standard epithets is that of *ergane* (''worker''), revealing her relation with many women's works. An intriguing deity, she represents the ferocity of war and is easily recognizable in art by her attributes, a shield, spear, and helmet. She is also the guardian of peaceful community life.

Apollo and Artemis were twins, the children of Zeus and Leto. The first part of the Homeric *Hymn to Apollo* tells the adventure of their birth. Their mother was being pursued by Hera, and Delos was the only place that agreed to receive her; it therefore holds a central position for their cult. The second part of the Homeric *Hymn to Apollo* tells how Apollo came to be associated with Delphi, after killing a huge female serpent, Python. He was the god of divination and Delphi became the most famous oracle in antiquity. His epithet Loxias designates the oblique answers that he gave. He was also the god of medicine, healing, and music. In *Iliad* 1 he is the one who brings the plague. Apollo was also associated with the sun, hence the epithet Helios. He was the leader of the Muses, *Mousagetes*, and the patron of lyric poetry, particularly choric. Since he was the god so directly associated with mankind (through his link with medicine, music, and divination) he held a significant position in cult and was worshipped in many places, particularly Delos, his birthplace, where the Delia festival was celebrated every five years, and in Delphi, where there were many festivals, such as the Pythia and the Theoxenia. Artemis, Apollo's twin sister, was the goddess of hunting and represents untamed virginity. Unlike Athena, the other virgin goddess, she was not a city person, but rather dwelt in wild country, and was known as the lady of the wild beasts (*Potnia theron*). She was worshipped in many places, particularly in Sparta as Artemis Orthia. She was associated with many women's festivals, because she was worshipped with Eileithyia, the goddess who brought relief to pregnant women by granting them fast delivery.

There are two versions of Aphrodite's birth, the goddess of beauty and love. According to Hesiod (*Theogony*, 190–200) she belongs to the most ancient divine generation, before the Olympians ever existed, born from Uranus' castrated genitals that were combined with the sea's foam. In Homer her mother is Dione who mated with Zeus. Her epithets Kypria or Kythereia show her connection with the islands of Cyprus and Cythera, both claiming to be her birthplace. The same conflict arises regarding Eros, who in some versions is one of the primordial divinities, like Gaia, yet in most literary accounts and artistic depictions he is the son of Aphrodite and Ares, incarnating a warlike feature of passionate erotic desire. In Plato's *Symposium* Pausanias makes a distinction between Aphrodite Ourania (''heavenly''), and Aphrodite Pandemos (''of the people'', ''possessing a vulgar nature''). This difference has shaped the cult of Aphrodite and the reception of the goddess in religious terms.

Ares was the warlike god. Unlike Athena, he represents the passionate and irrational desire and insatiable thirst for war. The spear and the burning torch are his symbols. In Homer he is the lover of Aphrodite. He was worshipped everywhere, particularly in Sparta, Arcadia, and Elis. Hephaestus, associated with fire and artwork, is in Hesiod's version the son of Hera alone, and therefore, as a product of the female only, he is lame. He was the renowned maker of many wonderful objects of which extensive description (*ekphrasis*) is given in literature, such as the shield of Achilles in *Iliad* 18. In some accounts he is married to Aphrodite. He is associated with volcanoes, and was therefore worshipped in Sicily, especially near Mount Aetna, and the Lipari islands where he worked with the Cyclops. There was an annual festival in his honour in Lemnos, and in Athens the festival of Chalkeia in October. There was also a feast with the name Hephaestia.

Hermes and Dionysus were both offspring of Zeus, both involved in stories about coming to power. Dionysus' place of birth was Thebes. He was the son of Zeus and Semele, a mortal princess, the daughter of Cadmus. Semele, having fallen into Hera's trap, asked to see Zeus in all his glory, and was destroyed by lightning. Zeus took the baby Dionysus, who was born some months later from his father's thigh. The general consensus ascribes to Dionysus a Thracian or Phrygian origin. His cult was widespread in northern Greece and had an orgiastic character, adhered to particularly by women in a form that demanded religious ecstacy (*ekstasis*). Women were swept away by his divine nature and abandoned their life to join frenzied dances in the mountains, swinging thyrsi and torches. There are various artistic representations of maenads, as well as literary ones, the most famous being Euripides' *Bacchae*. Dionysus was popular as the god of wine and merriment, although wine does not seem to have had any significant role in the ancient orgiastic cults. The use of a mask was characteristic of his cult. The birth of drama is associated with the cult of Dionysus. The greatest theatrical festivals, the greater and the lesser Dionysia, were in honour of him. He was also associated with powers of fertility in nature, thus his most ancient representations consist of wooden images

with the phallus as a symbol of fertility. The name Dionysus appears in linear B tablets, which suggests that he was not unknown to the Mycenaean civilization. Hermes is another "young" god in myth, although probably quite old in origin. He was born on the Arcadian mountain of Cyllene and proved his characteristics of inventiveness, trickery, and versatility already from babyhood. The stories of the deception of Apollo by the baby Hermes who stole his cattle and of Hermes' invention of the lyre are found in the Homeric *Hymn to Hermes*. He is associated with the notion of transgressing limits. He is the one who accompanies mortals to Hades, known for that as *psychopompos* ("escorter of souls"). He is also the messenger. Together with Athena he protects heroes in perilous enterprises and is often depicted in art escorting heroes. His characteristic attributes in art are the winged cap and the herald's wand. Much associated with Hermes is Hestia, the representative of home and family life; her name means "hearth". She was closely connected with Zeus, her brother. She took an oath of eternal virginity. She is the least anthropomorphic god of all and is never mentioned by Homer.

It is a commonplace to talk about the fusion between ancient and Christian religion. In some places, such as the southern Mani and remote islands such as Lesbos, popular attachment to ancient religion was so strong that total Christianization did not come before the 9th century AD. The struggle between paganism and Christianity was a common topic for writers on both sides. There is intense scholarly debate as to the relation between Hellenism and Christianity and the mutual influence of the one on the other. Despite many attempts by the Church to eradicate the practice of ancient religion it is still alive today in some folk customs and ideologies. The ancient gods and their spheres of influence have been fused with the cult of the saints: St Nicholas is the protector of seamen; a certain St Demeter was worshipped until recently in the region of Eleusis. Some saints have a specific role as healers or guardians against evil. As Martin Nilsson remarks: "Christianity easily swept away the great gods, but the minor daemons of popular belief offered a stubborn resistance." The belief in Hades, although no longer as the brother of Zeus and Poseidon, has many of the archaic elements that may be seen in Homer. Historians of religion and other scholars interested in great battles, particularly in the period of late antiquity and Byzantium, often take sides according to their personal beliefs and fail to see the periods in question with a sympathetic eye. As is often the case with languages, the mythology of ancient gods has not totally disappeared, but has left its remains in modern beliefs.

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GOLD

Although one of the major metals of antiquity, gold was not the first metal to be exploited, even for decorative purposes. This is probably because its extreme malleability made it unsuitable for making tools. The earliest regular use of gold dates from the 5th millennium BC (Neolithic) in Bulgaria, where containers of sheet and cast gold were found, with gold-dust decorated pottery vessels. Two different types of gold deposit were worked in antiquity – those in solid rock (primary deposits) and those in the sediments of rivers (placers). However, in both gold occurs as the native metal and smelting thus largely consisted of melting the separated metal.

Primary gold deposits are of many different types but one of the commonest is the vein deposit. Here the gold occurs as minute metallic grains in veins of white quartz typically up to a few metres wide, commonly with pyrite (iron sulphide or "fool's gold") and other sulphides. Such deposits form from hot circulating watery fluids. The fluids are very dilute and are usually associated with granitic intrusions or metamorphism. Gold deposits of this type were exploited in antiquity, but required much labour because the hard rock had to be crushed before the gold could be extracted.

Placer gold occurs as dust, grains, and nuggets in sands and gravels deposited by rivers. Such deposits form by the weathering and breakdown of the hard rock in which the gold originally crystallized, lighter minerals originally present in the rock are slowly swept away by the flow of the water in the river, and the heavier minerals, including the grains of gold, are left behind. A placer miner will search for gold in parts of the river protected from the full force of the river current, such as downstream of large boulders or on the inside of bends in the river bed. The gold can be separated from the sand and gravel of the river bed by a number of different methods, such as pans and sluices, all of which mimic the sorting action of the river. Herodotus described gold extraction in the Phasis river (modern Rioni) of Georgia thus: "The mountain torrents are said to bring down gold and these barbarians catch it in troughs perforated with holes and on fleecy skins." This technique no doubt gave rise to the legend of the Golden Fleece. When a river changes course, its placer deposit will become "fossilized", but can still be exploited in the same way.

Although placer gold deposits are mostly produced by mechanical processes of alteration and sorting, there is also a chemical part to the process. Early writers on mineralogy were aware of this and spoke of gold nuggets "growing" in rivers. When a rock is weathered, most of the gold remains in the solid, metallic form, but some goes into solution in the water. In the river bed the chemical conditions are different and the gold in the water is plated out on to gold grains ahead) present. This is

why gold grains in placer deposits can be much larger than grains in rocks.

Gold has been mined in Macedonia and Thrace since the Bronze Age, but serious exploitation did not begin until Philip II gained control of the mines in 358 BC. Almost all the rivers in this area had some placer deposits, but most were exhausted in antiquity. About 300 tonnes of gold were extracted in Macedonia and Thrace between 1200 BC and AD 50. In recent times the Axios and Gallikos rivers north of Thessalonica have yielded the most gold. This placer gold originated in the metamorphic rocks of the region. Some of these primary deposits were also directly exploited by the Thracians on Mount Pangaeum, where the gold occurs in quartz veins with pyrite.

There were several gold mines on the island of Thasos, and those near Kinyra, visited by Herodotus in the 5th century BC, were considered to be the most important. Much of the gold here, and on Siphnos, occurs in primary deposits of quartz veins with pyrite and copper sulphides. However, recently it has been found that the highest concentrations of gold on Thasos occur in sediments filling cavities in the marble host-rock. These cavities form by solution of the carbonate minerals in percolating rainwater, exactly as caves form in limestones. Streams that ran through these passages washed in the gold-bearing sediments to make these underground placer gold deposits.

The most famous ancient gold deposits of the Aegean region were those of Lydia. Exploitation of these very rich placer deposits of the Pactolus river started around 700 BC, but were exhausted by Strabo's time. The gold originated in quartz-gold veins in the metamorphic rocks to the south. Weathering liberated the gold, which was then transported by rivers and laid down in sandstones and conglomerates in the Gediz valley, some of which underlie the acropolis of Sardis. At a later time these rocks were again weathered and the gold redeposited in the beds of the present rivers. It is this two-stage process that gave the unusually high concentrations of gold here.

Much ancient gold used in the Aegean region was probably imported from Egypt. There it was first extracted from placer deposits of the Nile valley. Later, quartz-gold veins in the Eastern Desert were exploited, first from opencast and then from underground mines. Gold was also obtained from Nubia to the south (*Nub* means "gold" in Ancient Egyptian).

Although gold commonly occurs as the native metal, it is not usually pure, but alloyed with silver and copper. The silver alloy was called electrum on account of its colour, which was said to resemble that of amber. On occasion silver was deliberately added to extend the more valuable gold. This process was called *diplosis* ("doubling") by the early Egyptian goldsmiths. The gold content of such alloys was determined by the use of touchstones. These are small smoothed pieces of fine-grained, dark rock, hard enough to abrade gold. The gold was rubbed on the rock and the colour of the streak was used to determine the purity. The best touchstones were said to come from near Sardis, hence the synonym "Lydian stone". Many different types of rock were used, such as chert, siltstone, hornfels, and tuff.

Another impurity in much ancient gold is represented by minute grains of white metal of the platinum group of elements. These metal grains occur in serpentinites and are concentrated in placer deposits. The common presence of these grains attests to the importance of placer, as opposed to primary gold. Such grains could be a nuisance to goldworkers but were rarely removed.

The earliest attempts at refining were probably concerned with the removal of copper from gold. This can be done by heating the molten metal in a stream of air. During this process of cupellation the copper would be oxidized to form a slag. Separation of silver from gold was more complex. It was first developed at Sardis during the late 7th century BC. Electrum was mixed with salt and brick dust in a pot. The pot was heated for a long time without melting the metal, so that all the silver would be converted into chlorides and absorbed into the brick dust.

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GORTYN

City in Crete

The site of Gortyn lies 16 km inland from the south coast of Crete. Originally a Minoan settlement, it was refounded by Greek immigrants from Achaea, Thessaly, and Arcadia (central Peloponnese), followed by Dorians. From the 4th century BC Gortyn seems to have been involved in perpetual feuding with Knossos, each city striving for superiority over the other. When the Cretan cities became involved in war with Rome, Gortyn sided with the Romans in 66–65 BC and was rewarded by the victorious Quintus Caecilius Metellus with the title of *maxima civitas* and the position of provincial capital of the Roman province comprising Crete and Cyrene.

The early history of Gortyn is associated with the Gortyn law code of *c.*450 BC, found built into a wall of the odeum which was restored *c.*AD 100, though the inscription bearing the code may always have been visible. The code deals with a range of private legal matters, including family property, adoption procedures, slaves, mortgages, sureties, and donations. It reveals that slaves had certain rights, including that of permission to marry free women. Rape was a civil offence punishable by a fine, the amount depending on the status of the victim. A magistrate could use his discretion to decide whether a rape had been committed. This most important source of social and legal conditions in the Archaic–Classical period indicates the existence of a highly stratified society in which disputes over property rights and successions played a major part.

In the Roman period Gortyn continued to be the most important city in Crete. Christianity was preached early in the island. In the Pastoral Epistles Paul is represented as sending

Titus to Crete "to set in order things that are wanting" and to ordain elders in every city (Titus 1: 5). Gortyn may have been one of these, for by *c.*170 AD we learn from Eusebius of Caesarea (*Eccles. Hist.* 4. 21 and 23) that Philip was bishop of Gortyn. He received a letter from Bishop Dionysius of Corinth praising him for his "many noble acts" and putting him on his guard against heresies. Gortyn had already won a good reputation which Philip was upholding against heresies, suggesting a relatively long-established Christian community there. Gortyn was the metropolitan see of Crete and the remains of seven churches have been found, including one dedicated to Hagios Titos, the presumed founder of the bishopric.

Exploration of the ruins of Gortyn up to World War I revealed the remains of a praetorium, baths, an amphitheatre, and circus as well as the Christian churches. The city, which covered an area of 150 hectares, was abandoned during the 7th century under increasing pressure from Arab raiders.

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GOVERNMENT, THEORIES OF

The Classical approach to politics and government was concerned both with the institutional features of political regimes and with the question of the relationship between philosophy and government. The polis, the city state which presented the context for the development of that approach, was in many respects unique. From the perspective of the theory of government, the institutions of the polis can be illustrated by taking Athens as a model, since it was mainly Athens that provided the environment and the inspiration for political philosophy. The model, which was characteristic of Athens during the period of the city's greatest power, was based on the constitutional reforms of Cleisthenes (507 BC). Male citizens formed the Assembly (*Ekklesia*), the forum of direct democracy, which met regularly. The elected bodies were the Council of Five Hundred and the courts. But election to these bodies reflected a notion of representation very different from that which developed after the Middle Ages in Europe. The system of filling offices was a combination of election and lot: the townships (*demoi*) of Athens elected candidates and the holders of office were then chosen by lot from those elected. For the Athenians this system was democratic because it equalized the citizens' chances to hold office. The idea of citizenship was deeply participatory and left an unmistakable mark on Greek theories of government.

Political philosophy and the theory of government developed after the end of the Peloponnesian War and the defeat of Athens. The idealized account of the Athenian regime presented by Thucydides (in the Periclean Funeral Oration) emphasized both the civic commitment by the citizen and the confident and relaxed quality of life in Athens. The focus throughout was on the balance accomplished by Athenian political life between participation and freedom, public-mindedness and self-development. The civic greatness of the Periclean age was exemplified in a civilized way of life, in culture, and, characteristically, in the art of the 5th century BC. By contrast, the academic specialization of Athens came with the years of decline. Plato's Academy (385 BC) and, some 50 years later, Aristotle's Lyceum were founded in the aftermath of the humiliation of the model city state.

In the *Republic* Plato sought to define justice and asked whether justice can be found or created in the world of the polis. Plato's sublime exposition of his philosophical ideal in the *Republic* should be considered in conjunction with his account of "a half-way house between the actual and the ideal" (Barker, 1918, p. 183) in the *Laws*, written almost 30 years after the *Republic*. In the *Laws* an Athenian discusses with a Spartan and a Cretan the possible constitutional arrangements of government in a projected colony. Although there are also Spartan influences in Plato's thought, the Athenian model remains central in both positive and negative ways.

But the most important classical influence upon later theory comes from Aristotle, who was a member of Plato's Academy until Plato's death in 347 BC. Aristotle took over Plato's interest in political philosophy but approached its themes from a markedly different perspective. Aristotle's theory of political regimes in *Politics* proposes a classificatory model with three main types of organization of government: monarchy, aristocracy, and constitutional government. There are also three deviations: tyranny, oligarchy, democracy. Actual regimes vary, depending on the distribution of power according to rank and wealth. In addition to the analytical discussion in *Politics*, Aristotle undertook the empirical investigation of the operation of government in contemporary city states. These empirical studies, unarguably the first texts in the history of comparative political science, are lost, with the exception of the *Athenian Constitution*. Of equal significance has been the moral and political philosophy outlined in *Nicomachean Ethics*, a work of immense theoretical and methodological influence. For Plato the quest for truth was an ascent from mere opinions to the light of reality. There was an unbridgeable gap between the two. By contrast, Aristotle (and political science in the Western tradition since then) takes as a starting point common opinions in the polis, aiming to explicate and eliminate the inner difficulties which arise from an analytical consideration of these opinions. Regarding political methodology, Aristotle made two main contributions. First, he established political science as a comprehensive social science on the assumption that its comprehensive character corresponds to the comprehensive character of the political community. Other communities (social, religious, and so on) are parts of the political community which regulates them for the common good. Second, starting from the assumption that the choice of method (and degree of exactness) will depend on the subject matter, Aristotle put forward a distinct method of political inquiry, arguing that the objects of political science rest on human convention not nature.

The centrality of Plato and Aristotle for the future development of the theory of government cannot be readily gauged from an examination of the schools of political thought that

immediately followed the two great thinkers. The schools of the Epicureans and the Cynics, which began some 30 years after Aristotle, followed new lines of thought which centred respectively on the pursuit of happiness through avoidance of pain and anxiety and on protest against social convention. These lines (which, despite their differences, converged in their withdrawal from the sphere of political activity) were to become influential at a later stage, more so in western Europe than in Greece. In the latter the theory of government evolved in interaction with the kingdoms of the Hellenistic world beyond the Greek peninsula. The most important school of thought in the century that followed Aristotle's death, the Stoics, tolerated and occasionally defended the new monarchies, which were aiming at the integration of Greeks and people living in Asia. The theory of the deified king as a symbol of unity became influential throughout the Hellenistic world and was later partly adopted by the Romans. By the end of the 2nd century BC, however, Stoicism was revised by Panaetius of Rhodes. The revision was meant to recultivate Stoicism's moral philosophical content and in the process began to look back to ideas drawn from Plato and Aristotle. Panaetius worked on a humanitarian and universalist version of Stoicism, according to which justice is the bond that keeps polities together. In so far as a polity becomes unjust, it loses that basis of harmony which makes it a polity. This approach had great influence on Cicero and Roman legal theory, but it also signified a degree of adaptation of Platonic and Aristotelian concerns in the new context of a Mediterranean world which was becoming increasingly integrated economically and culturally (Sabine and Thorson, 1973, pp.151–52).

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See also **Aristocracy; Democracy; Monarchy; Oligarchy; Republic; Tyranny**

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GRAMMAR

The term "grammar" comes from the Classical Greek *grammatike techne* (later abbreviated to *grammatike*), which simply means "skill of writing" (Greek *gramma*, "alphabetic character", "writing"). Accordingly, the *grammatikos* was someone who knew the alphabetic characters, who was able to read. In Hellenistic times *grammatike* progressively took on the meaning of "linguistic and literary studies", i.e. the present sense of "philology". This was a result of the influence and development of various intellectual movements. Consequently the term *grammatikos* stood for a professional philologist, someone who was concerned with textual criticism and the interpretation of Classical works. In Late Antiquity a semantic narrowing occurred: grammar was now simply understood as phonology and morphology, which still form the central field of grammar. The Romans adopted the terminology together with the contents. The loan translation *litteratura*, however, was not applied in this field, whereas the Greek loan word (*ars*) *grammatica* passed as a technical term into most European languages.

In antiquity the systematic scholarly exploration of language and the development of proper grammatical terms were the work of philosophers. Although they were simply considering their own language and not doing any comparative linguistics in a modern sense, the Greeks nevertheless managed to create a terminology that is still in use by observing and compiling linguistic facts and arranging them into different fields. The first philosophical discussions about language date from the time of the Sophists (5th century BC) with a focus on the relation between word and object. Rather casually, philosophers also touched on grammatical topics: they distinguished for instance three genders of the noun. Plato's *Cratylus*, in which he deals thoroughly with linguistic problems, offers the basics of phonology. Alphabetic characters are distinguished according to vowels and consonants, and words are analysed in syllables. Syntax is also addressed in addition to morphology; for the first time the denotations *onoma* ("noun"), and *rhema* ("verb"), are explicitly introduced as parts of speech. The terminology was taken up and partly refined by Aristotle. He explained that conjunctions and particles are also parts of speech, as are articles and demonstrative pronouns. In his writings we find the technical term *ptosis*, ("case", "inflection"), for the first time as a designation for all morphological variations of word forms, i.e. not only nouns but also verbs. His terminology was extended and concretized by the philosophical school of the Stoa (from about 300 BC), who established grammar as a scholarly field of its own. As to phonology, the Stoics defined a set of 24 alphabetic characters as "elements of words" and they distinguished seven vowels and six consonants. As to morphology, they examined the inflection of nouns and verbs. Moreover, the tenses and gender of verbs were systematically described. In the field of syntax they explained constructions of active and passive voice, and also the role of the nominative and oblique cases. Etymology was particularly studied, as it had been by Plato. Although they pursued it with true passion, the results were obviously rather naive from the perspective of modern linguistic knowledge. The numerous irregularities in word formation and use were interpreted by Stoic philosophers as following from a principle of anomaly prevailing in language. Their method was purely descriptive: they merely stated facts but refrained from finding reasons for inconsistencies.

Grammarians of the Hellenistic period, by contrast, above all the Alexandrians (*c.*2nd century BC) who were leaders in philology at that time, tried to put regularities of language in the foreground, considering irregularities as deviations from normality. Their basic principle of explanation, which they called

analogy, has predominated ever since. This method had another starting point: whereas the Stoics proceeded from logical assumptions, Alexandrian philologists dealt with grammar for practical, i.e. didactic, reasons. As Greek civilization spread in the Hellenistic period, they tried to provide tools for non-Greeks to learn Greek language and literature. Morphology especially was understood as a system of analogies. Groups of identically inflecting words could be distinctly classified by corresponding rules so that patterns of declension and conjugation were set up and, at the same time, irregularities were registered. This method was also purely descriptive. The first systematic description of phonology and morphology was compiled by Dionysius Thrax (*c.*100 BC) under the title *techne grammatike* (''science of grammar'': syntax, defined as the composition of words in a sentence, is mentioned but not treated in detail). This work was the first grammatical manual for didactic purposes and consequently achieved wide circulation. From about the 4th century AD it was regarded as a standard grammar for Greek, forming a basis for further research throughout the Byzantine period and up to the Renaissance. Dionysius defines grammar as the ''knowledge of what is normally said by poets and prose writers''. His work is divided into six parts: reading aloud, explaining literary expressions, commenting on words and knowledge, etymologies, finding regularities, and finally literary criticism. From his explanations it becomes obvious that the eight parts of speech (noun, verb, participle, article, pronoun, preposition, adverb, conjunction) are determined by the sentence as a whole and, consequently, considered as (relative) parts of the sentence. The order of enumeration is intentional: the most important parts of speech, noun and verb, are named first. This is in accordance with linguistic and philosophical reflections from the past, where these two elements were already regarded as determining a sentence. Moreover, the first five word classes are inflectional, the last three are not. Dionysius' classifications and terminology were adopted by Roman grammarians. They adapted the system to the Latin language, also translating technical terms into Latin. These still survive (for instance *ptosis* = *casus* = ''case''). Apollonius Dyscolus (2nd century AD), basing himself on the Stoics and on Dionysius Thrax, dealt extensively with syntax in a way that was quite subtle for his time. He defined syntax as a combination of words considering the coherence of the whole sentence. He illustrates the central position of noun and verb in a sentence by remarking that a sentence will become senseless or at least indefinite if these two elements are omitted. He also wrote special studies on pronouns, adverbs, and conjunctions. Furthermore, he introduced the terms transitivity and intransitivity (in relation to verbs). With this grammarian, the separation between grammar and philology was fulfilled, so that the development of an independent discipline could begin.

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See also **Language**

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H

HADES

Hades, which in antiquity could denote both the subterranean kingdom of the dead and the god who ruled over it, means "that which is unseen", according to an ancient etymology. In the Classical period, however, "Hades" invariably referred to the god, never to his realm, which is described as "the house of Hades". He was the brother of Zeus, who ruled the upper air, and of Poseidon, who ruled the sea, though he never visited Mount Olympus. Rarely is mention made of any cult in his honour, due no doubt to the fact that he is characteristically described as "implacable" (*adamastos*) and "relentless" (*ameilichos*), and "most hated of all the gods". The most celebrated myth associated with his name involves his abduction of Demeter's daughter Persephone, whom he deceived into becoming his bride. In Greek mythology this is the explanation for the changing seasons, since Demeter, who succeeded in gaining her daughter's release from the clutches of Hades for eight months of every year (spring and summer), grieves and neglects the earth for the remaining four (autumn and winter).

Little is known about the appearance of the mythological kingdom of the dead. Its essential characteristic, however, was its impenetrable darkness. The earliest literary description is to be found in book 2 of Homer's *Odyssey*, where Odysseus visits the bounds of Oceanus in order to consult the denizens of the underworld. In book 24 the messenger god Hermes conducts the gibbering dead past Oceanus, the white rock, the gates of the sun god Helios, and the realm of dreams until they eventually reach the asphodel meadow.

The next literary description of Hades is provided by Aristophanes in his comic masterpiece *Frogs*. Having asked Heracles to describe to him the route by which he descended to the underworld to fetch Cerberus, the god Dionysus is informed that he will first come to a fathomless lake which he must cross in Charon's boat and then to "serpents and beasts in thousands", a "mass of mire", and "everlasting dung". Another important literary source is provided by myths put forward by Plato in his dialogues *Gorgias*, *Phaedo*, and *Republic*. The so-called Orphic gold leaves, which date to the 4th century BC, also provide limited information about the imaginary topography of the region. In addition, underworld scenes frequently appear in a series of Apulian amphorae of the later 4th century BC.

Hades' helpers only gradually assumed an identity and always remained somewhat shadowy. The earliest to emerge was Cerberus, the many-headed dog who acted as warder of the dead. Charon, the ferryman of the dead, did not appear until much later. In the Hellenistic period it became customary to place a small coin known as an obol in the mouth of the dead to pay for their fare across the River Styx. Charon is frequently depicted on Attic *lekythoi* (unguent flasks), waiting while the dead approach his boat.

It was a significant feature of Greek belief that the good and the bad led an equally cheerless existence in Hades. In early times very few were accorded a different destiny. They include the "blessed heroes", who, according to Hesiod (*Works and Days*, 166ff.), inhabit the Isles of the Blessed. Deep in the bowels of Hades was a windy region called Tartarus to which were consigned those who had outraged the majesty of the gods. Among its prisoners was Tantalus, who served his son Pelops to the gods to test whether they could distinguish human flesh from animal flesh. Around the mid-5th century BC a more developed belief in a dualistic afterlife emerged, due largely to the popularity of the mystery religions, which offered ill-defined blessedness in the hereafter for initiates. Principal among these was the Eleusinian Mysteries. Greek religion, however, did not promote anything comparable to the Christian notion of "weeping and gnashing of teeth" for those who failed to secure such blessedness.

The quality of life in Hades is well summed up by Achilles' observation to the effect that he would rather work as a day-labourer for a man who had little property than be lord of all the spirits of the dead (*Odyssey*, 11. 489–91). When encountered in the underworld, the dead appear to be frozen in a time warp. Ajax, for instance, is unable to forget the rancour that he feels towards Odysseus for having been beaten in the contest for the arms of Achilles. Equally pathetic is their preoccupation with the welfare of those who have survived them. The dead were believed to remain at the same age and in exactly the same physical condition that they were at the moment of death. Oedipus, for instance, states that the reason why he blinded himself was so that he would not have to look upon the faces of

his parents in the underworld (Sophocles, *Oedipus Tyrannus*, 1371–73). Even so, it was infinitely preferable to enter Hades than to pass all eternity between two worlds. Especially to be pitied were the unburied dead. "Bury me as quickly as possible," Patroclus requests of Achilles (*Iliad*, 23. 71ff.), "so that I may enter the gates of Hades." In Sophocles' *Antigone* denial of burial is represented as an offence against the gods.

The Greek notion of Hades was taken up and developed by the Romans, notably by Virgil in *Aeneid* book 6. In the Septuagint Hades is used to translate the Hebrew word "Sheol". In Christianity the term is sometimes used of the place to which Christ descends after the Crucifixion.

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See also **Afterlife; Death**

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HADRIAN AD 76–138

Roman emperor

In an age of Roman philhellenism, Hadrian, the only Roman emperor (reigned AD 117–38) known to have been honoured with a statue in the Parthenon, was himself unusually actively philhellenic. In youth his interest in Greek studies had earned him the nickname "Graeculus". In AD 112 he was archon at Athens, where his friends included Arrian; he may also have met Epictetus at this time. After his accession as emperor in AD 117 he spent considerable periods in the Greek east; among the many instances of the Hellenic emphasis of his life are his wearing a beard (he was the first Roman leader to do so for many generations), his inclusion of a Poecile, a Tempe, and other Greek elements in his villa near Tibur (Tivoli), his initiation into the Mysteries of Eleusis (to which, according to Aurelius Victor, he continued to devote himself, back in Rome in the 130s, "after the manner of the Athenians"), and his "Greek love" relationship with Antinous (whose cult, fostered by Hadrian after Antinous' drowning in the Nile in AD 130, was particularly popular in Greek lands).

Hadrian – like many contemporary and earlier Romans and Greeks – sought to recover the Greek past. He delighted Greeks including Pausanias by restoring the tomb of Epaminondas. He gave back Mantinea its name after 150 years as Antigonea. In taking the name "Olympios" he associated himself not only with Olympian Zeus, whose temple in Athens he completed, but with Pericles, who had also assumed this name. In basing in Athens the Panhellenion, the all-Greek council established in AD 131/32, as in the honour he accorded to such cities as Sparta and Argos, he emphasized past glories, aiming perhaps, as Spawforth and Walker argue, to redress the balance between Achaea and Asia, between "cultural and historical eminence" and "economic and political muscle". (In Asia too, however, he was a benefactor during his visits of AD 123–24 and 129 to cities including Sardis, Smyrna, and Ephesus; Oresta was refounded as Hadrianopolis (Adrianople); at Cyzicus the emperor began the spectacular completion of the temple; Asian foundations included Hadrianutherae (modern Balikesir) in Mysia.)

Hadrian also, of course, sought to Romanize the Greek past or at least to recreate it, as Swain suggests, "in its idealised form" – "making Greece how it should be". In increasing the power of the Areopagus, for instance, he made the Athenian constitution more archaic – but "to the advantage of Rome and the local elite". Tested loyalty to Rome as well as authentic Greekness were conditions for cities wishing to belong to the Panhellenion; as Spawforth and Walker say, the cities' familiar preoccupation with questions of civic origin was transformed "at least indirectly, into a Roman concern ... encouraging a contemporary perception of the Greek past and the Roman present as complementary rather than mutually exclusive". Whatever the exact nature and functions of the Panhellenion – whether it was a new outlet for the social and political aspirations of upper-class Greeks (Spawforth and Walker) or rather "essentially a religious organisation, devoted above all to the cult of Hadrian and later emperors" (Jones) – it clearly involved a relationship between, negotiation between, Greeks and the empire. Hadrian's gate in Athens links and honours old and new with its inscriptions, on one side "This is Athens, once Theseus' city" and on the other "This is Hadrian's city, not Theseus'".

Similarly the buildings of Hadrianic Athens can be seen as "a stylish mixture of Greek and Roman traditions appropriate to the physical setting of a Panhellenic League founded by a Roman emperor" (Spawforth and Jones). Building went on for many years after Hadrian's visits of AD 124–25, 128–29, and 131–32, but among the first works to be begun may have been the temple of Olympian Zeus or Olympieion (in the *temenos* (precint) of which the Panhellenion may have met), originally begun under Hippias and Hipparchus in the 6th century BC, and dedicated by the emperor in AD 132. The temple was built on a lavish scale, as is still apparent from its remaining columns. It was particularly renowned for its statues, including the ivory and gold cult statue, "worth noticing", according to Pausanias, "as it exceeds all other statues in magnitude except the Rhodian and the Roman colossi". At about the same time, probably, work began on Hadrian's Library or Stoa. This, says Pausanias, boasted 100 columns of Phrygian marble "and pavilions with gilded roofwork and alabaster, decorated with statues and paintings". Hadrian also built the aqueduct from Mount Parnes to the Agora, temples of Zeus Panhellenios and Hera, a gymnasium – 100-columned again, says Pausanias – a Pantheon, and, in the northeast corner of the Agora, a basilica.

Hadrian's cultural investment in Athens helped to transform it, during the course of the 2nd century, from "a provincial backwater by comparison with the great capitals of the eastern provinces at Antioch, Ephesus, or even at Corinth" (Shear) to a major and increasingly cosmopolitan centre. It became also, perhaps more directly as a result of Hadrian's personal initiatives, what Spawforth and Walker argue was "the agonistic centre of the Greek world": between AD 128 and 132 he founded the Panhellenia, the Hadrianeia, and the Olympieia

and made the Panathenaia of equal status with these games. Perhaps even more helpfully, he provided the city with an annual grain supply. Already by AD 124–25 he had done enough for Athens for the city to reciprocate by doing him the unusual honour (last conferred on Attalus I of Pergamum in 200 BC) of creating the new *phyle* (tribe) Hadrianis; although this was possibly prompted in part by Rome or self-interest, it can scarcely have been a controversial decision.

The one area of the empire where Hadrian's Hellenism did not easily achieve the desired results was Judea, where the prohibition of circumcision and the decision to transform the ruins of Jerusalem into the *colonia* of Aelia Capitolina were among the main causes of the rising of AD 132–35 (indicating, for Birley, "that his Hellenism had blinded him to reality"). Elsewhere Greek influence was, increasingly, unopposed; Hadrian made a substantial contribution to this already powerful process, not only within the Greek lands but as the first emperor to "persuade the Greeks of old Greece to enter the Senate" and to appoint Greeks to govern provinces in the Latin west (Birley).

MARTIN GARRETT

Biography

Born in AD 76 in Spain, Hadrian was nicknamed "Graeculus" in youth for his devotion to Greek studies. In 112 he served as archon at Athens. He became emperor in 117 and spent long periods in the east where he sought to recover (and to Romanize) the Greek past, transforming Athens into a great eastern capital. He wore a beard to emphasize his Hellenism; he introduced Greek decor into his villa at Tivoli; he was initiated into the Mysteries of Eleusis; and he enjoyed a "Greek love" relationship with his friend Antinous. He died in 138.

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HALICARNASSUS

City in southwest Asia Minor

Halicarnassus (modern Bodrum) was a Greek city in Caria in southwest Asia Minor, traditionally founded *c.*900 BC by the city of Troezen in the Argolid region of mainland Greece. With a superb sheltered position on the Mediterranean coast, the orientation of Halicarnassus was naturally outwards towards the Aegean rather than inwards towards the mountainous areas of inland Caria. The city had close ties with other east Greek cities given its position on shipping routes connecting them. In the Archaic period Halicarnassus was one of the cities of the "Dorian Hexapolis" (a loose federation of six cities of Dorian Greeks, which also comprised Cnidus, Cos, and the three cities of Rhodes, Lindus, Camirus, and Ialysus), but by the Classical period the city was Ionian with strong native Carian elements, although Caria as a whole was ruled by a local dynasty subject to the Great King of Persia. Herodotus, the Greek historian of the 5th-century BC wars between the Greeks and the Persians, was a native of Halicarnassus.

Given Persia's suzerainty in the region, Halicarnassus took part in the Persian Wars on the Persian side. The Carian dynast Artemisia I with five ships accompanied the invasion of Greece by the Great King Xerxes in 480 BC, and played a distinguished part in the sea battle off Salamis (recounted by Herodotus, 8. 88), although the battle was a Greek victory. Later, Halicarnassus became a member of the Delian league under the leadership of Athens, and served as an Athenian naval base at the end of the 5th century.

The 4th century BC was the zenith of Halicarnassus. The dynast Mausolus, who became the Persian satrap after Halicarnassus returned to Persian control in 386 BC, moved his capital there from the inland city Mylasa *c.*370 BC, synoecized (united into one city) neighbouring non-Greek settlements, and embarked upon an ambitious building programme to transform Halicarnassus into a grand city. He built fortification walls, a palace, harbour installations, a Greek-style theatre, various public buildings, and revealed a considerable familiarity with, and appreciation of, Greek culture. He meddled in 4th-century Greek politics in the Aegean to the detriment of the Second Athenian Confederacy, and extended his influence in Asia Minor and the Aegean.

Halicarnassus was justly famous for the great tomb of Mausolus, known as the Mausoleum, probably begun during his lifetime and completed *c.*350 BC after his death. This monument was a major achievement of Greek art and was considered one of the seven wonders of the ancient world in Hellenistic and Roman times. Built in a commanding position overlooking the harbour, the tomb would have dominated the city and served as a landmark to seafarers. Information about the Mausoleum is derived from ancient literary descriptions and extensive excavation, and, although it has been variously reconstructed, it essentially consisted of an Ionic colonnade atop a high square podium, surmounted by a pyramidal roof. The building was adorned with quantities of free-standing sculpture and several relief friezes. Mausolus had the money and influence to employ the leading Greek sculptors of his day (among them Scopas of Paros, Leochares of Athens, Bryaxis, and Timotheus). The pyramidal roof was a striking feature, perhaps inspired by eastern prototypes (the pyramids of Egypt have been proposed as among the Mausoleum's forerunners).

The Mausoleum had many imitators. To name but a few: Alexander the Great (who surely saw the Mausoleum when he besieged Halicarnassus – see below) built at Babylon an immense pyramidal tomb composed of six stepped levels for his beloved companion Hephaistion after his death in 324 BC. Moreover, Alexander's proposed "Last Plans" (if genuine) included a pyramidal tomb for his father Philip II (Diodorus

Siculus, 18. 4. 5). Finally, the famous Lion Tomb in the independent Greek city Cnidus, which lies at the tip of a peninsula just south of the Bodrum peninsula, was topped by a stepped pyramid supporting a platform for an enormous recumbent lion.

The smooth course of Alexander the Great's progress down the east coast of Asia Minor during his invasion of the Persian empire was interrupted when Halicarnassus offered resistance, but the city finally fell in 334 BC after a difficult siege (vividly described in Book 1 of Arrian's *Anabasis*). After Alexander's death, Halicarnassus – like other Greek cities in Asia – could not escape the power struggles of his successors, and it was subject at various times to the new Graeco-Macedonian Hellenistic kingdoms (the Ptolemies of Egypt, the Seleucids of Syria, and the Antigonids of Macedonia) as well as to the independent Greek island of Rhodes. It became part of the Roman province of Asia in 129 BC.

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See also **Mausolus; Persian Wars**

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HARBOURS

Because the Greeks have been a seafaring people since before recorded history, harbours have always played an important part in their life. Certainly the rocky terrain of mainland Greece, and settlement on the islands of the Aegean, encouraged travel by sea as opposed to travel by land. Yet, as Lionel Casson, the naval historian, points out, it was possible to load and unload ships lying off an open beach without using harbour installations until well into the 19th century AD, so the absence of harbours did not necessarily preclude a city or island from participating in seafaring. In the early days, ships could even be drawn up on to shore, literary evidence of which can already be found in the *Iliad* and *Odyssey*, presumably composed in the 8th century BC. Nevertheless, the importance of harbours even at this early date may be reflected in the fact that Nestor led to Troy 90 ships, the second biggest contingent of the Greeks after Agamemnon's 100, according to the catalogue of ships in book 2 of the *Iliad*. (Indeed, some scholars have argued that the catalogue of ships may reflect an actual Mycenaean order of battle for some historical event underlying the myth of the Trojan War.) According to tradition Nestor was also associated with the magnificent natural harbour at Navarino bay in the western Peloponnese, while archaeological finds have linked him with the Bronze Age palace found near the bay.

The *Odyssey* depicts the mythical Phaeacians as living almost in a fairy-tale land, and, among their many blessings, endows them with an idealized harbour consisting of a protective bay with sheds for the storage of sails and rigging, stone bollards for tying ships to, work space for sailmakers, riggers, and shipwrights, and a shrine to Poseidon, surrounded by a meeting place (*Odyssey*, 6. 263–69). These features may be taken as the desiderata of a Greek harbour of the Archaic period. Actual harbours did not lag far behind this poetic one, and soon surpassed it, as in the harbour at Delos with its 8th-century BC mole, 100 m long, constructed from rough-hewn granite blocks. The Phaeacians depended on nature alone for a protected anchorage. At the end of the 6th century BC the tyrant Polycrates built a harbour at Samos comprising two moles, one 370 m long and the other 180, and included it within the circuit of the city's defence wall (Herodotus, 3. 60). Also at the end of 6th century BC, according to the pseudo-Aristotelian *Constitution of Athens*, the tyrant Hippias began fortifying Munychia in the Piraeus, even though Athens continued to use the open roadstead at Phalerum as a harbour until about 493 BC.

At the beginning of the Classical period the ideal Greek harbour had moles (*chomata*) to provide a safe anchorage (*hormos*). A commercial harbour (*emporion*) had quays, open sheds (*neosoikoi*), and warehouses, whereas a naval base (*neorion*) had boathouses (*neosoikoi*) and gear sheds (*skeuothekai* or *hoplothekai*). Defence towers stood at the seaward end of the moles and, being brought within the circuit of the town wall, made it a protected harbour (*limen kleistos*). In fact, several cities in the Classical period went so far as to join their harbours to their cities with long walls, most famously Athens and the Piraeus, Corinth and Lechaeum, its port on the Corinthian Gulf, and Megara and Nisea, its port on the Saronic Gulf. In the Piraeus, Pashalimani (ancient Zea) and Tourkoliniano (ancient Munychia) in the Piraeus were *neoria*, whereas Megas Limin (ancient Cantharus) served as both an *emporion* and as a *neorion*, as indeed it still does today. The presence of the harbours, and their use as commercial and naval centres for Athens beginning in 493 BC with Themistocles' founding of a navy to repel Xerxes' invasion, led to a lot of construction in the Piraeus. In about 450 BC Hippodamus of Miletus imposed an orthogonal city plan on the Piraeus which is still reflected in the layout of the modern streets.

Pashalimani in the Piraeus has the best-preserved boathouses, served by a stone slip *c.*3 m wide and 37 m long. (From these dimensions Morrison and Coates have derived the size for their recent reconstruction of the trireme.) The boathouses' roof was supported by columns each just under 6 m wide; the use of columns instead of a solid wall allowed for ventilation. The boathouses stored ships and wooden gear

(masts, yards, poles, ladders, and oars). Oeneiadae in Acarnania had longer boathouses with bevelled slips to fit the ships' bilges, and they are therefore thought to have accommodated quadriremes or quinqueremes, larger than the triremes presumably housed at Pashalimani. The Piraeus also had an elaborate gear shed, built in the 4th century BC and known as the arsenal (*skeuotheke*) of Philon; considered something of an architectural wonder, its details are known to us from an inscription (*IG* 22, 1668). By the end of the 5th century BC, the essential elements of the commercial harbour in the Greek world had been worked out, becoming more elaborate and increasing in size in later centuries.

The harbours of the Hellenistic age were of vast size and integrated plan. The premier harbour of the period was of course at Alexandria, the city Alexander the Great founded in 330 BC and named after himself. Its plan was crowned by the famous Pharos, a lighthouse which was one of the seven wonders of the ancient world and the light of which could be seen from about 50 km away. There were two basins at Alexandria, the Great Harbour, which faced east, and the Eunostos, which faced west. The Great Harbour was formed by two stone moles (one of which was 900 m long), the tips of which were 600 m apart, though underwater obstacles reduced this opening to two entrances, 100 and 200 m wide, respectively. Such a plan, dominated by a lighthouse, probably influenced the Roman emperors Claudius and Trajan in developing the facilities at Ostia for the reception of the grain fleet from Egypt, for, when Trajan had finished with it in the early 2nd century AD, Ostia also had two harbours dominated by a lighthouse.

Also in the Hellenistic age, Delos became a commercial centre for trade in the Aegean, as well as continuing to be an important shrine to Apollo. Inscriptions show that it was a centre of the slave trade, and the Romans deliberately fostered it as a trading rival to Rhodes, expelling the Delians in 166 BC and replacing them with Athenian settlers. In 146 BC Corinthian importers moved there from their own city which had been sacked by the Romans, and the religious festival in honour of Apollo on Delos practically became a trade fair. Delos, however, never recovered from the depredations of Archelaus, the general of Mithridates of Pontus, and pirates in the 1st century BC, and went into a slow decline thereafter.

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See also **Ships; Trade**

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HEALING CULTS

A genuine human desire to turn towards higher, spiritual forces beyond "scientific" medicine in times of illness and distress manifested itself very early in Greek culture. Already Linear B tablets from Knossos are addressed to "Paieion" ("Pa-ya-wone") who receives votives of limbs in Palaikastro about 1600 BC (Middle Minoan) and is the doctor of the gods also in the *Iliad* (5. 401, 899f.); he will later amalgamate with Apollo. Apollo's son Asclepius is still a mortal in the *Iliad*, but already a "doctor without fault" (4. 194); not only his two sons, Machaon and Podalirius, but also other heroes such as Patroclus act as physicians if the need arises. Likewise the seer (and later healing hero) Amphiaraus was originally a battle hero, participating in the war of the "Seven against Thebes"; when his army was routed, Zeus would not let his seer die, but conveyed him into the underworld alive by splitting the earth before him. Afterwards, Amphiaraus was revered as a healing and oracle-giving hero, with musical and sports contests (Amphiareia) being held in his honour.

The overall increase of hero cults in the 7th and 6th centuries BC also led to an intensified worship of healing heroes. Above all in Attica there existed plenty of healing gods and heroes, among them heroified historical persons (e.g. Hesiod in Orchomenus; in Athens, Sophocles became the hero Dexion, after he had received the god Asclepius). Almost every other god and goddess could assume healing functions, too, above all Apollo; Artemis cared especially for pregnant women, newborn babies, and young children, and Athena was already in the 6th century BC worshipped as "Athena Hygieia" on the Acropolis.

This variety of healing cults was very much reduced when from about 420 BC onwards Asclepius became the most prominent healing god. His cult first seems to have existed in Thessaly (Trikka) and Messenia; his most important place in the later 5th century BC was Epidaurus, whence the cult spread to Eleusis, Delphi, Paros, Corinth, Cos, Pergamum, and in 420 BC (during the plague) to Athens; in these transfers, Asclepius' holy snake was brought by ship or cart to its new place. The only other healing cult that continued was that of Amphiaraus; his main sanctuary was the Amphiareion in northeast Attica, with a branch established in Athens itself near the Theseum between 377 and 375 BC. Iconographically Asclepius is often represented as a bearded elderly man wrapped in a garment and carrying a stick (Amphiaraus is similarly depicted from the 4th century BC) and together with his family: his wife Epione, his sons Machaon and Podalirius, his daughters Hygieia, Aegle, Aceso, Iaso, Panaceia, and later also with a dwarf called Telesphorus ("who brings to a good end") who is either his son or his servant.

In Hellenistic and Roman times, healing cults and Asclepieia spread through the whole Aegean and beyond. The increasing popularity of these cults coincided with the rise of scientific medicine, which may seem paradoxical at first sight. The basic attitude of ancient doctors was different from that of today. According to Hippocrates, a physician has to do three things: first, to describe the case; second, to draw conclusions about the kind of illness; and finally to decide either "I will treat this illness" or "I won't treat it". In the latter case the sick needed an alternative to whom they could turn, and at this point healing gods and heroes came in.

The best-preserved healing places – the above-mentioned Amphiareion near Oropus (not far from the Boeotian border) and the Asclepieia in Epidaurus and Cos – all show the same main elements: the sanctuary of the god, an incubation hall (see below), baths, a theatre, and guesthouses for the pilgrims; most

of these buildings were constructed in the 4th century BC, when the importance of healing cults reached a first climax. The famous theatre of Epidaurus has space for 15,000 spectators, a measure of the immense popularity of the cult. Such additional amenities created the atmosphere of a "holiday resort" and may have been important for the well-being and curing of the visitors. Certain rules of behaviour had to be observed; dying people or women giving birth were denied access, for they would cause religious impurity.

Healing was mainly sought by the process of "incubation", i.e. sleeping in the sanctuary. The patients first had to make a purificatory offering, sacrificing an animal at the altar in front of the temple. After physical cleansing in the baths, patients laid themselves down to sleep on the skin of the sacrificed animal in the *koimeterion* or "incubation hall", a long columned hall, which could be partitioned into small compartments. The god then approached people in their dreams by touching them either with his own hand or with one of his holy animals, the snake or the dog (both already companions of oriental healing gods), which bit or licked the spot where the patients were suffering. The healed placed votive offerings – imitations of limbs in various materials and reliefs depicting the healing – in front of the temple; when the more precious items (in gold, silver, and bronze) were later melted down, an inscription noted the shape of the votive, its donor, and its weight. Tales of miraculous healings were preserved on wooden or marble tablets; in Epidaurus they were collected and inscribed on big marble stelai (1.70 ¥ 0.75 m) in the second half of the 4th century BC; three of these, containing 130 healing miracles, are still extant. It is difficult to form an adequate judgement of these "miracles"; but as modern medicine has long since acknowledged the importance of psychological factors in healing, one should not talk of "cheating", as scholars did in the 19th century. Frequently mentioned in these tales are eye complaints (in the *Plutus* of Aristophanes, the god of wealth himself is cured of his blindness in the course of a very funny incubation), paralysis, speech disorders (the god often cures muteness by a sudden shock), ulcers, abscesses, old sores (in the case of which the god often performs spectacular surgery), and everything connected with pregnancy and desire for children. Interestingly, Christian tales of miraculous healings by saints (as found in records from their holy places) are very similar to these pagan ones; even in our time, observation (places such as Lourdes) has shown that religious ecstasy can induce spontaneous healing.

There was a second flourishing of healing cults in the 2nd century AD, with the Asclepieion of Pergamum being one of their foremost places; even leading intellectuals such as Aelius Aristides eagerly sought their help. Healing divinities preserved their appeal well into the mysticism of late antiquity; by the 4th and 5th century AD, however, they were increasingly superseded by Christianity (with Christ himself often acting as healer).

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See also **Medicine**

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HEALTH

The standard Greek words for health (e.g. *hygieia*, *euexia*) do not appear in Homeric and Hesiodic epic, but "disease" (*nousos*/*nosos*) is a significant theme ever since the tenth line of the *Iliad*, and freedom from disease is depicted as belonging to a faraway land (*Odyssey*, 15. 407–08) or to a lost golden age (Hesiod, *Works and Days*, 90–126). Once the Greeks developed more fully articulated conceptions of "health" in the Classical and Hellenistic periods, they disagreed vigorously among themselves about how to define it, how to achieve it, and where to rank it among the human goods.

1. *Conceptions and definitions of health*. Balance, harmony, due proportion, equilibrium, regularity, and proper mixture or blending ("temperament") were central to the Greek understanding of health in most epochs, but there was no consensus on exactly what constitutes a "harmony", a healthy blending, etc. Furthermore, a significant minority adopted a very different approach to health. The 5th-century BC philosopher-scientist Alcmaeon of Croton might have been the first to claim that the "equal rights" (*isonomia*) of opposing qualitative powers (moist–dry, cold–hot, bitter–sweet) in the body preserves health, whereas a "monarchy" of any single such power causes disease (but the late 1st-century AD doxographic text that attributes this view to Alcmaeon displays suspect, anachronistic terminology). This conception of health recurs in Greek philosophical and medical texts until the Early Modern period. According to the Presocratic Diogenes of Apollonia, for example, health depends on a proper mixture of blood and air in the body, while the Hippocratic treatise *On the Nature of a Human Being* argues that health exists to the greatest degree whenever four juices or humours "that are in the body" – blood, phlegm, yellow bile, black bile – achieve the right quantitative and qualitative proportions relative to one another. For all their strong disagreements about the basic constituents of the human body, several other Hippocratic texts (e.g. *On Ancient Medicine*, *On Regimen*) as well as Empedocles, Democritus, Philistion of Locri, Plato, Aristotle, Galen, and most Byzantine physicians and philosophers shared this fundamental theory that good health is due to a right blending (*krasis*) or balance

of constitutive elements or qualities or substances, whereas disease is due to a rupture of such a blending or balance, resulting in a separation or disproportion of elements, etc.

The quantitative implications of balance and proportionality sometimes were given mathematical expression, notably by the Pythagoreans. They not only characterized health as a harmony and an "equality of parts" (*isomoiria*) of opposites but also called their "perfect number" – the decadic *tetraktys* (i.e. 10 as the sum of 1, 2, 3, and 4) – "the principle (*arche*) of health" and referred to their mathematical symbol of identity (a pentagram) as "health". Furthermore, they advocated the use of music, which they viewed as a mathematical phenomenon, to maintain or restore harmony in the body. Some of Plato's theories of due proportion and mixture are not unrelated to the Pythagoreans' mathematicizing versions of health, but Plato perhaps elaborated the moral and aesthetic dimensions of such a conception more fully, closely correlating health, the well proportioned, the good, and the beautiful (e.g. *Timaeus*, 87c–d).

"Health of the soul" (*psyche*) was often explained in the same terms as physical health. Indeed, a number of Greeks, early and late, viewed health as a condition or disposition of a unitary psychosomatic entity. Closely related was the popular association of physical and mental health with moral uprightness (and, correspondingly, the attribution of diseases, including mental disorders, to moral failings, a recurrent notion in Greek popular culture of all epochs, especially when accompanied by the ascription of illness to divine intervention). Many physicians, including some Hippocratics, Aretaeus of Cappadocia, Soranus of Ephesus, Galen, and later writers, explained mental health by reference to relations or interactions between material elements or substances in the body. At times, however, philosophers – including those who, unlike Plato, offered a materialist account of the soul – attempted to draw sharp distinctions between physical and mental or "psychic" health. Some Stoics, for example, defined the health of the body as a good blend (*eukrasia*) or due proportion (*symmetria*) of the four elementary qualities (hot, cold, wet, dry) but the health of the psyche as a good blend of the opinions of the soul.

2. *Attaining and maintaining health*. The theories of balance, harmony, and proportionality are closely related to a broader ideology of moderation. Critias, for example, suggested in an elegy that the moderate drinking practised by the Spartans is fitted beautifully to health and to the works of Aphrodite, sleep, and temperance ("the neighbour of piety"), while Xenophon attributed the extraordinary health of the Spartans to their moderate eating habits. Similarly, in a comic fragment of Eubulus, Dionysus limits those who are healthy in mind to three kraters of wine: the first for health, the second for eros, the third for sleep; with the fourth krater, he says, one leaves the realm of Dionysus and enters that of hubris. Several Hippocratic treatises (e.g. *Affections*, 49) similarly claim that smaller quantities of food are better for one's health. The frequent ancient Greek criticisms of the excesses characteristic of athletes' diets and exercises, and so too the clear distinction drawn by some physicians between steady good health and exceptional physical strength, are further manifestations of a wide-ranging cultural valorization of moderation, even if there often were considerable gaps between belief and practice.

Starting in the 5th century BC a sizeable body of Greek literature developed on the preservation and restoration of health by means of regimen (*diaita*), i.e. by a stable mode of living, including diet, exercise, bathing, and other regular habits. Herodicus of Selymbria was widely regarded as being among the founders of this tradition, but the 5th-century BC Hippocratic treatise *On Regimen* is the first extant work offering detailed, comprehensive norms for human regimen with a view to health, while also taking account of individual differences in age, gender, season, constitutional type, location, environment, etc. The fundamental tenets of this Hippocratic text remained a cornerstone of much subsequent work on regimen. Many of its prescriptions entail self-control, also in matters of eating and drinking, and this has suggested to modern scholars that its audience – like that of most ancient and Byzantine treatises on health through regimen – was assumed to have an ample food supply. In reality, food shortages were endemic in the ancient Mediterranean, even if not all food crises were severe. The primary audience of the extensive Greek medical literature on regimen therefore probably was a literate socio-economic elite. Palaeopathological analyses of skeletal remains confirm that certain nutritional deficiencies were common throughout antiquity. Not all such deficiencies are attributable to catastrophic food crises (nor are all recurrent congenital diseases, rheumatic ailments, cases of dental caries, etc.), but it is nonetheless striking that evidence of deficiency, also in children, is at least as common as evidence of dietary excess, even at times of economic prosperity.

Other Greek writers on achieving health through regimen include Acron of Agrigentum, Philistion of Locri, Diocles, Mnesitheus, Dieuches, Praxagoras of Cos, Herophilus, Erasistratus, members of the Empiricist "school", Galen, and numerous early and late Byzantine authors, e.g. Oribasius (especially books 1 and 4), Hierophilus the Sophist (*On Nutriment according to the Months*, i.e. the months of the Julian calendar, and *On the Faculties of Nutriment*), and Symeon Seth.

None of these works was more influential than Galen's monumental *Health* (*Hygieina*) 1–6 and *On the Faculties of Foods* 1–3. In *Hygieina* Galen assigned the preservation of health to "hygiene" ("the art of health") but the restoration of health to therapeutics. His *Health* is based on the classical theory of a due proportion and blending of four primary qualities (hot, cold, wet, dry) and of four humours. Not every deviation from the normal humoral proportions results in a disease; like several precursors, Galen adopted the notion of relative health. Health can range from an ideal condition to one just short of disease. This latitude leaves room *inter alia* for the different temperaments or humoral blendings characteristic of different humans in a normal healthy state and for the 40 different normal human constitutions accommodated in Galen's physiopathology. Food, drinks, exercise, rest, bathing, massage, the surrounding air, sleeping, being awake, excretions, and emotions are interactive factors that can be regulated quantitatively and qualitatively by "hygiene" to preserve health in different human types and under different conditions.

3. *Health and human values*. While there was a broad consensus in most epochs that health should be classified among the goods (*agatha*) or among the excellences or "virtues" (*aretai*) of the body, there was less agreement about its value relative to other goods. In popular morality health often is given first place. A drinking song, for example, ranked health first, beauty second, and wealth third (Plato, *Gorgias*, 451e1–452d4).

Isocrates' hierarchy was health first, then prosperity, then being honoured as a morally good person; and the comedian Philemon (*c.*368–267 BC) ranked health first, prosperity second, pleasure third, and owing no debts fourth. Among the maxims attributed to Menander is also the transculturally recurring claim that "nothing is better in life than health". It is hardly surprising that Hippocratics agree that health is worth the most to human beings (e.g. *Regimen in Health* [in *Nature of a Human Being*]).

A related but logically different valorization of health is the depiction of health as a necessary condition of all other human goods. In a paean to the goddess Hygieia (Health), Ariplion of Sicyon (5th–4th century BC), for example, sang "without you no one is happy", claiming that Health alone makes possible the joys of wealth, children, political power, and eros. This commonplace is found in a variety of genres, including medical treatises. The Hellenistic physician Herophilus, for example, depicted the actualization of all human goods – those of the soul, of the body, and external ones – as dependent upon health.

Not all Greeks agreed, however, that health should be accorded first place among the goods. Philosophers, in particular, challenged this popular view. Grantor (*c.*340–275 BC) envisioned a Panhellenic theatre in which personifications of four traditional goods vied for first prize in an oratorical contest. The audience awarded first prize to Courage, second to Health, third to Pleasure, and fourth to Wealth. And in Plato's *Republic* (9) Socrates argues that a wise person will not make physical health a chief aim but will rather subordinate the interests of the body to those of the soul; harmony in the body should merely be in the service of harmony in the soul. Similarly, in Plato's *Laws* (1. 631b6–d6) the Athenian stranger ranks four "divine" goods – wisdom, moderation, justice, courage – above four "lesser human" goods, viz. health, physical beauty, physical strength, and prudent wealth. Aristotle, too, proposed a hierarchical distinction between goods or virtues of the soul (which in turn are subdivided into intellectual and moral virtues), goods of the body (health here being valued more highly than strength and beauty), and external goods. The Stoics went further, arguing that health, though preferable, is neither a virtue nor a vice but morally indifferent (*adiaphoron*).

4. *Health and religion.* The remarkable popularity of the cult of Asclepius in all parts of the Greek world did not eclipse the many other divinities associated with health. *Hygieia* ("Health"), for example, appears as an epithet of Athena as early as 500 BC and, slightly later, as the personification of an attribute of Aphrodite, as a divine daughter of Asclepius, and as an independent goddess. Sometimes Health also shared cult sites with Dionysus, Tyche, and other deities. The Greeks' relation to Hygieia and to other gods of health expressed itself in sacrifices and prayers that signalled an expectation not only of health but also of the enjoyment of other physical, mental, and material "goods" (including especially eros and "blameless wealth"). Criticism of the use of religious practices to achieve health was occasionally voiced by philosophers (e.g. Democritus and Diogenes of Sinope), and magicians and charlatans were explicitly denounced by Hippocratics. But many representatives of scientific medicine, including several Hippocratics and Galen, explicitly accepted the therapeutic role of religion, notably of Asclepius and of prayer, much as some Byzantine writers transmitted scientific theories of health, even while worshipping Christ as Healer and while accepting a Christian body–soul dualism that devalued physical health and privileged Christ as physician of the soul. About paganism in the Roman empire it has been remarked that "the chief business of religion....was to make the sick well" (MacMullen, 1981). Early and Byzantine Christianity likewise recognized the pervasive longing for mental and physical well-being and, by addressing this desire both theologically and practically (e.g. through care of the infirm and "hospitals"), it rendered Christ a victorious successor to Asclepius, even as Byzantine Christians transmitted Galen's science of health.

HEINRICH VON STADEN

See also **Anatomy and Physiology; Disease; Healing Cults; Medicine**

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HECATAEUS OF MILETUS

Prose writer of the 6th–5th centuries BC

Hecataeus of Miletus, son of Hegesander, the most important of the early Ionian prose writers, was active in the late 6th and early 5th centuries BC. The little that is known of his life is drawn from Herodotus, in whom may repeatedly be detected a tension between unacknowledged exploitation of and polemic against Hecataeus' work. Herodotus introduces Hecataeus in conversation with the priests of Amnon at Thebes (2. 143), an encounter which strongly suggests a symbolic force as the representative of the Ionian enlightenment confronts the custodians of Egypt's ancient wisdom. Hecataeus reappears in a very different context, playing a prominent part in Herodotus' account (5. 36, 124–26) of the planning of the Ionian Revolt (500–494 BC). His prudent opposition, based on geopolitical considerations, suggests a relatively senior figure; he does not forfeit the confidence of the leaders of the liberation movement by his disapproval of their strategy, and his clear-sighted estimate of their chances demonstrates the value of geographical study for those who want to serve their fellow citizens. There is reason to doubt the historicity of Hecataeus' role in both these episodes; the prominence which Herodotus here affords Hecataeus should perhaps be seen primarily as a tribute to one whom he recognized as his intellectual precursor.

Besides improving Anaximander's map of the world, which he envisaged as a flat disc encircled by the river Oceanus, Hecataeus wrote a pioneering work of systematic geography, the *Periegesis* or *Periodos Ges* (''Journey Round the World''), divided into two books, ''Europe'' and ''Asia'' (the latter including Africa). The *Periegesis* provides information about the places and peoples to be encountered on a clockwise coastal voyage round the Mediterranean and the Black Sea, starting at the Straits of Gibraltar and ending on the Atlantic-coast of Morocco, with diversions to the islands of the Mediterranean and inland to Scythia, Persia, India, Egypt, and Nubia. In addition to the enumeration of peoples and their territorial boundaries, of rivers, mountains, bays, towns and harbours, Hecataeus on occasion notes other items of interest, such as strange customs (e.g. frr. 154, 284, 287) and legendary history (e.g. frr. 76, 129); but if his geographical work could be adequately accommodated in two rolls without further subdivision, he cannot often have gone into much detail. We owe to Hecataeus the familiar description of Egypt as the gift of the Nile (fr. 301; cf. Herodotus, 2. 5. 1, Arrian, *Anabasis*, 5. 6. 5). It is uncertain how far his information was based on his own first-hand observations and inquiries; Miletus, with its extensive colonial network and overseas trade, would have been an ideal environment in which to gather geographical data. We might wonder, too, whether he was indebted to topographical and ethnographical information assembled by the Persian administration. It is difficult to assess how much Herodotus owed to Hecataeus' work, and, though much subsequent geographical writing probably drew on it, precise debts are hard to identify. Over 300 fragments of the *Periegesis* survive, the two parts of the work being about equally represented; but many are merely citations in Stephanus of Byzantium recording the occurrence of a place name in the *Periegesis*. Callimachus regarded as spurious the text of *Asia* known to him (T 15: Athenaeus 70A, 410E; Arrian, *Anabasis*, 5. 6. 5), presumably the source of citations in later authors; we do not know his reasons, but it is likely enough that a topographical work would be tacitly brought up to date so long as it was felt to have some practical utility, and he may have been troubled by references to places beyond the horizons of a writer active around 500 BC.

We do not know whether Hecataeus' geographical work preceded or followed his mythographic treatise, the *Genealogies* (or *Histories* or *Herologia*). This comprised at least four books, but fewer than 40 fragments survive (and some of those conventionally assigned to the *Genealogies* by reason of their subject matter may belong to foundation legends related in the *Periegesis*). The opening of the *Genealogies* proclaims Hecataeus' intellectual independence, and rather suggests that he was influenced by contact with foreign traditions (fr. 1): ''Hecataeus of Miletus speaks thus. I write what seems to me to be true; for the Greeks have many tales which, as it appears to me, are absurd.'' His subject was the legends of families claiming a divine origin (including, apparently, his own (Herodotus, 2. 143)). It is not clear whether his terminus was the Trojan War, or whether he continued to include material relating to the sons of the Homeric heroes; but it should certainly not be supposed that he regularly attempted to follow genealogical traditions down to his own day. In the *Genealogies* legends of the heroic age are transposed into the sober rationalism appropriate to prose; the methods of Ionian science are applied to the legendary past. As is shown by his treatment of Geryon (fr. 26), who is relocated from the far west to Ambracia, and of Cerberus (fr. 27), identified as a formidable snake, called the hound of Hades because of its lethally poisonous bite, Hecataeus evidently believed that behind the fabulous elaborations of tradition lay historical facts distorted by exaggeration or by literal interpretation of metaphorical expressions. Whether he pioneered this demythologizing approach we cannot tell, but certainly it proved immensely influential; Herodotus' treatment of the foundation of Dodona (2. 54–57) well illustrates its application, and Rudolf Bultmann's work on the New Testament demonstrated that still in the mid-20th century the method retained its attraction not only for journalists but even for serious scholars.

Dissimilar as the subject matter of his works may at first sight appear, both alike serve as intermediaries between Archaic catalogue poetry and the more sophisticated methods of synthesizing information about the *oikoumene* characteristic of the 5th century BC. Here, as with many of the developments associated with Ionian intellectuals, we see the beginning of trends often regarded as characteristic of the sophistic movement. The fragments are too short to give a fair idea of his style; ancient critics regarded it as clear but much less varied and attractive than that of Herodotus.

Heraclitus of Ephesus, the approximate contemporary of Hecataeus, took a severe view of his work, including him with Hesiod, Pythagoras, and Xenophanes in his list of those who showed that much learning did not produce good sense (12B40 Diehls-Krantz).

STEPHANIE WEST

Biography

A native of Miletus, active in the late 6th and early 5th centuries BC, Hecataeus was the most important of the Ionian prose-writers and Herodotus' most significant intellectual precursor. Besides revising

Anaximander's map, he wrote a geographical work (*Periegesis*) and a rationalizing mythographic treatise (*Genealogies*), of which only fragments survive.

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HELIODORUS

Novelist of the 4th century AD

Author of the *Aithiopika* (Ethiopian Story), the last and most sophisticated of the ancient Greek novels, Heliodorus stands at the crossroads of Hellenism. Probably written shortly after AD 350, in the twilight of paganism, the novel itself looks resolutely backwards to Classical Greece, apparently ignoring the existence of both Rome and Christianity. By its scale – ten books – technical flamboyance, and appropriation of the canonical texts of Classical Greek literature, it seems almost deliberately set up as the final authentic masterpiece to round off the Classical tradition. The fact that it was arguably exploited by Julian the Apostate in two of his orations seems to confirm that it shares the emperor's militant nostalgia for the pagan past. And yet, according to our earliest biographical testimony, that of the 5th-century ecclesiastical historian Socrates, Heliodorus went on to become a Christian bishop who enforced strict celibacy on his clergy at Trikka in Thessaly. Whatever the truth of this report, it was instrumental in ensuring the novel's survival in Byzantium and thence its transmission to the Renaissance in western Europe, where Heliodorus was ranked alongside Homer and Virgil as a master of epic narrative. Though it is not quite what modern readers expect a novel to be, it is, within its own terms, a masterpiece. Recent work has explored Heliodorus' innovative narrative technique, which shows rather than tells and conscripts the reader into an active interpretive role, from the enigmatic opening tableau onwards.

Heliodorus locates his novel firmly in the Classical mainstream. Although its plot follows the romantic stereotype of a beautiful young and noble couple (Theagenes and Charicleia) falling in love at first sight and enduring numerous adventures, ordeals, and attempts on their chastity before living happily ever after, the *Ethiopian Story* is both more intricate and less episodic than its predecessors. It presents its familiar story in a radically new way, by beginning in the middle and then filling in the earlier episodes by means of a long retrospective narration by one of the characters, which ends about halfway through the whole. This format is clearly modelled on the *Odyssey*, and indeed Heliodorus has also modified the standard story so that, for one of its protagonists at least, it becomes, like the *Odyssey*, a journey home, culminating in marriage and paternal recognition. Specific episodes, such as a necromancy, also recall the Homeric prototype, while the secondary narrator, an Egyptian priest called Calasiris, begins with a quotation from the *Odyssey* and is a figure of Odyssean cunning and duplicity – characteristics that inform his narrative technique as well as his actions. The novel is also permeated by references and allusions to the Athenian theatre (often in abstruse technical detail), partly as a meta-literary commentary on its own theatricality, partly as a device of characterization to distinguish between the "tragic" protagonists and "comic" secondary characters. Some episodes recall specific tragic models; for example, the subplot of his stepmother's infatuation with the Athenian Cnemon, which he narrates in the first book, rewrites the story of Hippolytus, and the events of the final book, when the protagonists face human sacrifice at the end of the earth and a king proposes to sacrifice his own daughter for the sake of his community, play on the reader's acquaintance with Euripides' two Iphigeneia plays. For the setting, Heliodorus has ransacked Classical historians and geographers: every detail of his Ethiopia, for example, can be traced to literary sources, occasionally in defiance of known reality.

The heroine of the novel, Charicleia, is an Ethiopian princess, born white to black parents, exposed at birth, and subsequently brought up as a Greek by the priest of Apollo at Delphi. The hero, Theagenes, is a descendant of Achilles and characterized as a true Hellene by his victory at the Pythian games. The couple's adventures lead them through Egypt and an encounter with the corrupt and sensual Persian occupying powers – the story is set in the 6th century BC – to Ethiopia, where the novel ends with their installation as priest and priestess of the Sun and Moon, the Ethiopian national gods. It is difficult not to read this scenario as a coded exploration of the nature of Greek cultural or racial identity and its place in the multicultural world of the Roman empire, especially as Heliodorus, at the end of the novel, reveals himself as non-Greek, a Phoenician from Emesa. Similarly the novel's polemically pagan religious apparatus of divine governance and its basically, but unsystematically, Neoplatonic world view – with an almost abstract pure divinity mediated to humanity by a plurality of lower and often malevolent powers – combined with an untypically ascetic sexual ethic applying equally to male and female, look like a displaced engagement with the issues posed by the rise of Christianity.

If we discount an uncorroborated report by the 14th-century historian Nikephoros Kallistos Xanthopoulos, that the bishop Heliodorus had to renounce his see because he refused to disown his novel, we have no evidence for the reception of the *Ethiopian Story* before the Byzantine period. As early as the 7th century a few of Heliodorus' *sententiae* were included in the *Florilegium* of Maximos the Confessor, and from this and similar anthologies passed into Byzantine paroemiographies. His novel was read and summarized by Photios in the 9th century, discussed from a literary and moral perspective by

Psellos in the 11th, and subjected to an allegorizing Christian interpretation by Philippos Philagathos in the 12th. In the same century the basic plot structure of the *Ethiopian Story*, with its beginning *in medias res*, was imitated in the literary Byzantine romances of Theodore Prodromos and Niketas Evgenianos, who also took over details of theme and incident. The *Ethiopian Story* was hugely influential in western Europe after the publication of the *editio princeps* in 1534 and Amyot's French translation in 1547, but much less so in Greece. However, in 1804 Adamantios Korais published a groundbreaking edition with modern Greek commentary, in the introduction to which he claimed the modern novel as a Greek invention.

J.R. MORGAN

See also **Novel**

Biography

Born at Emesa in Syria and probably writing in the 4th century AD, Heliodorus was the author of the *Ethiopian Story*, last of the surviving ancient Greek novels. According to the 5th-century historian Socrates, he later became a Christian bishop. This has been doubted, but the story no doubt ensured the survival of the text.

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HELLENES

Ethnonym for ancient and modern Greeks

Although the Greek language was already employed by the time of the Linear B tablets of the 13th century BC, the term "Hellenes" is so far unattested for the Mycenaean period. Thucydides (1. 3) notes that in the Homeric poems the Greeks who participate in the expedition to Troy are denoted variously as Argives, Achaeans, and Danaans rather than described collectively as Hellenes – a term which is only applied to the Phthian contingent led by Achilles; on these grounds the historian hypothesizes that the name originally denoted a small tribe in Phthia (southeast Thessaly) before being disseminated more widely to describe all the populations of Greece. Aristotle (*Meteorologica*, 1. 14. 352a), on the other hand, derives the name "Hellenes" from the Selloi who were thought to have lived in the Epirote region of Dodona in northwest Greece, while a fragment of a 6th-century poem, erroneously ascribed in antiquity to Hesiod, describes Dodona as lying within the country of Hellopia.

A strictly empirical analysis of the occurrence of the terms "Hellas" and "Hellenes" in the extant literature of the Archaic period has prompted many scholars to accept the Thucydidean interpretation regarding the diffusion of the name, though with some modifications. In the *Iliad* Hellas is envisioned as adjacent though not identical to Phthia (2. 683; 9. 478) while the Panhellenes seem to have included the Locrians to the immediate south of Phthia (2. 530). The term "Hellenes" is not attested in the *Odyssey*, but on several occasions Hellas is opposed to Argos in contexts which should suggest that the former designated mainland Greece north of the Corinthian isthmus while the latter indicated the Peloponnese (1. 344; 4. 76, 816; 15. 80). Similarly, in Hesiod's *Works and Days* (early 7th century), the terms "Hellas" and "Panhellenes" appear to be limited to central and northern Greece (528, 651–53). It is sometimes assumed that the vehicle of diffusion for the name was the Delphic Amphictiony – a league of (largely) central Greek states and tribal federations charged with the administration of the Delphic sanctuary – though the early historical existence of the Amphictiony and its struggles with the Delphians are controversial.

By the mid-7th century the term "Panhellenes" appears to be applied to all the populations of the Greek mainland and islands: the Parian Archilochus (fr. 97) refers to the Panhellenic colonization of the island of Thasos in which he took part, while a pseudo-Hesiodic fragment (fr. 130) employs the term to describe the various Greek suitors who sought the hands of the daughters of Proetus. In this period it was almost certainly the sanctuary of Olympia and in particular the Olympic games that acted as the focus of Hellenic identity. Herodotus (5. 22. 1–2) describes, in the context of Alexander I of Macedon's attempts to compete in the games in the early 5th century, how the contest was restricted to Hellenes alone and that competitors' qualifications were judged by officials named the Hellanodikai (whose existence is already attested in an early 6th-century inscription). In the mid-6th century the Ionian cities of Chios, Teos, Phocaea, and Clazomenae teamed up with the Dorian cities of Rhodes, Cnidus, Halicarnassus, and Phaselis and with Aeolian Mytilene to found the Hellenion sanctuary at Naucratis (Herodotus, 2. 178. 2).

It would appear that in the Archaic period the Hellenes conceived of their common identity in ethnic terms (that is, in terms of kinship between their constituent subgroups): the 6th-century *Catalogue of Women* (frr. 9, 10a) expressed this affiliation in genealogical form by deriving the descent of Aeolus, Dorus, Ion, and Achaeus (the eponymous ancestors of the Aeolians, Dorians, Ionians, and Achaeans respectively) from the eponymous Hellen. Nevertheless, in the Persian invasion of 480 BC the Greeks of the mainland were confronted for the first time by an external enemy whose language, customs, and religion appeared so desperately alien that it instigated the

rhetorical construction of a barbarian "other" in opposition to which the Greeks began to define themselves. A similar polarization seems to have occurred at the same time among the Greek colonies of south Italy and Sicily where confrontation with the Phoenicians of Carthage prompted the colonists to promote their common Hellenic identity above the Dorian, Ionian, or Achaean affiliations to which they had previously subscribed.

Typical in this regard is the definition of Greekness (*Hellenikon*) which Herodotus (8. 144.2) places in the mouth of an Athenian envoy prior to the battle of Plataea (479 BC): the Hellenes are those who share common blood, a common tongue, common sanctuaries and sacrifices, and similar customs. In the early books of his *Histories* Herodotus presents a series of ethnographic excursuses on the Persians, Egyptians, Libyans, and Scythians which serve to highlight the profound cultural differences between Greeks and barbarians and which reflect a growing conceptualization of Hellenic identity in cultural rather than ethnic terms – a definitional shift paralleled also by Sophistic and Hippocratic emphases on environmental rather than biological determinism. Both Herodotus and Thucydides imply that non-Greeks who learned the Greek language and Greek customs could "become" Hellenes and *c.*380 BC, the Athenian orator Isocrates proclaimed that the Hellenes were defined by their shared culture rather than their common nature (*Panegyricus*, 50). The word that Isocrates uses for "culture" is *paideusis* (cognate with *paideia*) which denotes a cultural system imparted through education, and throughout the 4th century there is a strong sense that Hellenism is a matter of the correct education – preferably at Athens, which Pericles had already described half a century earlier as "the school of Hellas" (Thucydides, 2. 41. 1). It was this common Hellenic culture that was thought to engender a sense of *homonoia* (unanimity) – a term frequently invoked in the 4th century BC as part of a Panhellenic rhetoric which aimed at uniting the various Greek city states in a common crusade against the Persian empire, purportedly in retribution for the Persian invasions of the early 5th century.

Though contemplated by both King Agesilaus of Sparta and Philip II of Macedon, this Panhellenic crusade was ultimately undertaken by Alexander the Great whose conquests in the East planted Macedonian–Greek garrisons among indigenous populations as well as disseminating elements of Greek culture throughout much of the known world. While it is perhaps inaccurate to say that the East was "Hellenized", regular interactions and intermarriage between Greeks, Macedonians, and indigenes precluded any strict ethnic definition of the term "Hellenes" which was applied more on the basis of common cultural and behavioural traits transmitted through the traditional Greek *paideia*: so, for example, in documents from Ptolemaic and Roman Egypt Hellenes are regularly described as "those associated with the gymnasium".

The Greeks continued to call themselves Hellenes under Roman occupation despite the fact that their conquerors divided them between the provinces of Macedonia, Achaea, and Creta et Cyrene (to say nothing of the Greeks in Asia Minor and the Hellespontine areas) and referred to them as "Graeci" (itself a word of Greek derivation). A sense of a historical Hellenic identity was once again resurrected with the emperor Hadrian's foundation in AD 131/32 of the Panhellenion – a league of cities to which admission was dependent upon the ability to adduce origins from the cities of old Greece – and writers of what is known as the Second Sophistic period reinvoked an archaizing identity predicated on the Classical Hellenic past. In general, however, the term "Hellenes" retained its linguistic and cultural rather than ethnic connotations, with the Atticizing dialect considered the purest form of the Greek language.

With the spread of Christianity "Hellenes" increasingly came to designate pagans – particularly in the writings of the Church Fathers – and continuity with the Hellenic heritage was consciously ruptured through the rejection of naturalistic sculpted representations of the human form, the rectilineal architectural plan of the Hellenic temple, Hellenic philosophy (or at least some elements of it), and most importantly Hellenic religion. The equation between Hellenism and paganism was, if anything, strengthened in the 4th century AD by the apostasy and promotion of "Hellenic liturgy" on the part of the emperor Julian, and even as late as the 12th century AD the Hellenes are described as possessing a wisdom at odds with the real knowledge to be gained through the Christian religion (Anna Komnene, 2. 34. 12). Most Greeks of the Byzantine period referred to themselves as "Romaioi" (indicating their affiliation to the Christianized eastern Roman empire), though the 12th-century historian Niketas Choniates equated "Romaioi" with "Hellenes" (496. 50) and this double nomenclature became more common during the 13th century in the face of increasing threats from Franks, Venetians, and Turks, as well as with the gradual contraction of the Byzantine empire to include mainly Greek-speaking areas.

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See also **Identity**

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HELLENISTIC PERIOD 323–31 BC

The Hellenistic age begins with Alexander the Great's conquest of the Persian empire and its incorporation into his vast, Macedonian-controlled state. It ends in more piecemeal fashion with the Roman conquest, one by one, of the various regions, now separate kingdoms, into which his empire had divided after his death, ending with the defeat of Cleopatra VII at the battle of Actium in 31 BC, and her suicide in her palace at Alexandria the following year. Its beginning is marked by a massive change in the fortunes and status of the Greek communities. The end is less marked, since in many ways the Roman empire developed out of the Hellenistic world, and in its system of administration was much influenced by it. There were, however, changes in geographical extent. Only the most powerful of kings could hold intact an empire as vast as Alexander's, and on his premature death in 323 BC, leaving only a halfwit and an unborn infant as his legitimate heirs, the empire had disintegrated into separate kingdoms, each controlled by a new dynasty descended from the Macedonian warlord who had originally seized control of it. It took a Roman emperor to reunite it, and by that time much, in Mesopotamia and further east, had been lost to the Hellenistic world.

Thus the Hellenistic world was never a political unity, though all its constituent parts, and their various rulers, looked back to Alexander as the ultimate source of their existence. Behind this there were often considerable local variations, since it included regions with non-Greek forms of civilization much older than that of the Greek world itself. At the same time, the conversion of all this into Hellenistic shape (the term itself is a 19th-century invention, but accepts the fact of the extension into this wider area of a culture that was essentially Hellenic in origin, in a world that thus became Hellenized) was not merely a matter of military conquest. The defeat of the Persian invader by the Greeks in 480/79 BC, long before the counter-crusade promoted by Philip II and executed by Alexander, had given the Greeks – with their political systems that valued independence, and above all with the military skills of their citizen foot soldier that resulted from this – a prestige that was acknowledged by their non-Greek neighbours, and already used by them for their own purposes.

Thus Hellenization was also a state of mind created within the non-Greek. It can be seen clearly at Phoenician Sidon, where the kings (previously influenced by Egyptian customs and form) took over the manners of the Greeks and even, in the case of Strato, Hellenized their names. Greekness was attractive in its own right, not merely through virtue of Macedonian military success, and despite the fact that many so-called Macedonians in the armies of the Hellenistic kings, following a policy of necessity already instituted by Alexander himself, were not true Macedonians by origin.

As a period, the Hellenistic age has been looked down on as an inferior descendant of its Classical predecessor. Much of the intellectual and artistic excitement seems to have gone. In the Classical tradition of western European education, based on the study of the great authors of the 5th and 4th centuries BC or earlier, the writings of the Hellenistic authors were regarded as markedly inferior in style and content alike. They were neglected, particularly in the late Roman and Byzantine schools, which were more concerned with what seemed to be the purer forms of the earlier texts. Much Hellenistic poetry, and the bulk of the work of the greatest Hellenistic historian, Polybius, was lost when the manuscripts ceased to be copied in this period. In many ways, judging from what has survived, this is understandable.

Thus the Hellenistic age has suffered from a degree of neglect. Yet it is of crucial importance, a vital link in the continuity of the Greek tradition. If it had not existed, or the continuity had been broken, our understanding and appreciation of Greek civilization would have been weakened irrevocably. The Hellenistic states took the Greek tradition, modified it, and moulded it in many ways to suit the different circumstances of what was still, reckoned in terms of the vast majority of its inhabitants, a non-Greek world, and then handed it on to their equally non-Greek but equally infatuated successors, the Romans. The Greek world transmitted through the Roman empire, it must always be remembered, was the Hellenistic world, not that of the Classical city states.

The achievements of the Hellenistic world are found in different subjects; they often depend on local or regional rather than universal circumstances. Foremost is the Museum – that is, the sanctuary of the Muses – at Alexandria, and its library. This was essentially the creation of royal patronage by the Ptolemies, the dynasty that seized Egypt as a largely self-contained area suitable for an independent kingdom in the struggles of Alexander's successors. Alexandria, which was officially "next to" rather than "in" Egypt, emphasizing its non-native character in an essentially alien land, became the capital, a substantial part of its area designated as royal, containing, in addition to the actual palace residence of the kings, the tombs of Alexander himself and the Ptolemies, as well as shrines and sanctuaries including the Museum. In addition to the actual cult of the Muses, the Museum provided a residence and place of study for scholars who were deliberately attracted to the city and paid a salary from royal resources. This royal patronage of the arts and learning, though it echoes that of the age of the tyrants, is very different from the system that prevailed in the Greek city states. The direct antecedent for it is rather Macedon under Archelaus, and later Philip II and Alexander. The intellectuals brought to Alexandria included poets, such as Callimachus and Theocritus, who often had other functions, as tutor to the royal children, or librarian. Though Alexandria was originally intended as a city for those people of Greek origin who had already settled in Egypt when it was conquered by Alexander, it expanded rapidly through an influx of new settlers from the Greek world and elsewhere, particularly in the time of Ptolemy II. It is noticeable that the intellectuals of the Museum, when we can trace their origins, invariably came from other parts of the Greek world (Callimachus from Cyrene, Theocritus from Syracuse).

Most members of the Museum were scholars rather than creative artists, and though Alexandria is only one particular and untypical part of the Hellenistic world, it is this aspect that sets a pattern for Hellenistic achievement. The library was not merely a great storehouse of all known Greek literary texts – which the early Ptolemies collected avidly, buying up, for example, the official copies of the texts of Athenian drama, part of that city's state archive – it was also a place where the texts were studied, where necessary codified, and copies manufactured, using the readily available Egyptian papyrus. It was at Alexandria that the definitive text of Homer was established, the two great poems

divided into 24 "books", and handed on to posterity. It is through Alexandria that the Classical and earlier texts survived. The commentaries and annotations on them, though generally Byzantine in their surviving form, incorporate and continue the work of Alexandrian scholars.

Even so, the area of greatest strength was in the sciences. The Macedonian kings had a personal interest, and often involvement, in practical engineering, specifically for military purposes, and this continued to be developed in the Hellenistic age, not merely at Alexandria. In other sciences, including astronomy, mathematics, and medicine, scholars based in Alexandria continued work on subjects whose study had originated elsewhere; what was different now was the far greater opportunities available. When Eratosthenes, the polymath from Cyrene, wanted to calculate the size of the earth, he was able to do so – it appears, accurately – by measuring the different angle of shadow cast by the midday sun at Alexandria during the equinox, compared with the overhead sun at Syene (Aswan) which was virtually on the tropic. The distance between the two places was known, and both were of course situated within the kingdom of the Ptolemies. Medicine, too, was briefly in an outstandingly favourable position. Careful (that is, scientific) observation of symptoms, cures, and the progress of diseases had certainly been established by the 5th century BC, by Hippocrates of Cos, and the medical school founded on that island at that time continued to flourish. Doctors trained there and elsewhere were attracted to Alexandria, and one of them, Herophilus, made startling advances in the understanding of the nervous system and optics in particular. The advantage he had was that Ptolemy made available to him the corpses of executed criminals for dissection and even, it is plausibly believed, live criminals for vivisection, forms of research that were unthinkable under the ethics of traditional Greece. Mathematics continued to be hampered by the lack of a simple numerical system; or rather, it transcended this by complex work in geometry, particularly the study of conic sections by Apollonius of Perge, who in his turn had been attracted to Alexandria.

Much of this achievement is difficult to evaluate. Very often the treatises written by these scientists have been lost. Some (particularly, it seems, in medicine) were superseded by later treatises written by those who continued the work in Roman times. Others, particularly where no further advances were made, ceased to be studied and so copied in later times; the Greek was difficult to understand, did not have any literary value, and was of little interest at Constantinople. Yet some of the most important works certainly survived at Alexandria into medieval times, and, if not copied, were translated into Arabic. Thus the Hellenistic tradition continued, not at Constantinople but at Baghdad. It is important to remember this as an instance of the continued survival of the Hellenic tradition in an area that lies outside the world of European civilization.

Alexandria was not the only place where scholars worked. Athens was associated rather with the continuing schools of philosophy, the Academy of Plato and the Lyceum of Aristotle and their successors. This made Athens, rather than Alexandria, the goal of other philosophers, such as the Phoenician Zeno of Citium in Cyprus, who taught in the Painted Stoa of the Agora at Athens, and so instituted the Stoic philosophy; and Epicurus, born on Samos of Athenian parents, whose philosophical school was established in the garden of the house at Athens where he settled towards the end of the 4th century BC. Both these schools of philosophy continued to be of major importance in Roman intellectual life. Pergamum, on the other hand, which became a Hellenistic capital city under its upstart dynasty the Attalids, was developed to emulate Alexandria, particularly in the 2nd century BC when Alexandrian intellectualism seems to have gone into a decline in the face of a lack of interest among the later Ptolemies, culminating in an expulsion of the scholars in 146 BC.

Yet in many ways the greatest importance of Hellenistic civilization lies in the interrelationship of the different cultures, Greek and non-Greek. Throughout, the Greeks maintained a supremacy that was only gradually weakened in the face of military decline. Generally, under their Hellenistic kings they enjoyed a superior position within the community and its political system, and though in the late period vast areas in the east were lost to resurgent oriental states, at the very end the Greeks were able to maintain their social supremacy (at least) through the intervention of the Romans and the takeover of the kingdoms and cities into the Roman empire. Greekness, therefore, was something desirable and to be aimed at, and there was clearly much assimilation into the Greek community by non-Greeks. Important Hellenistic Greek poets, such as Meleager, were of non-Greek origin. In the 1st century AD Juvenal, bemoaning the influence of the Greeks in Rome, has to point out that the corrupting influence comes not from true Greeks but that already, for a long time, it is the Syrian Orontes that has flowed into the Tiber.

The impact of all this can be seen in different ways. The socially superior Greeks lived in cities to which the kings often devoted great expenditure, on architecture or, at times, "shows" of various categories. Architecturally, the Hellenistic cities acquired a magnificence and solidity never found even in the greatest of their Classical predecessors, and this taste for magnificent urbanism was continued and developed by the Romans. Alexandria was a city on an altogether vaster scale, the spaciousness of the royal area contrasting with the densely built tenement blocks of the ordinary inhabitants, a contrast also found at Rome. But perhaps the most significant impact comes within the sphere of religion, expressed through the medium of the common Greek language (Koine) which became a universal second language even among the non-Greeks. Greek religion had been essentially tied to its localities. Greeks uprooted from home in the new Hellenistic settlements began to look to the local religions as apposite to the areas in which they now lived. Sometimes this was deliberately fostered by the kings (Serapis at Alexandria), but more often it was a spontaneous development. It was the Hellenized world that spread the Egyptian Isis cult through the Greek and Roman communities, or the oriental Mithraism taken up by the Roman army. Christianity is an offshoot of the Jewish religion, though its sacred books are in the koine. Even so, it might have remained yet another obscure Jewish sect, had St Paul not seen the light outside the walls of Damascus, and promoted his beliefs in the Greek world; his epistles are a roll-call of the Hellenistic communities. Without the Hellenistic world, the world of Christian Greece would never have existed.

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See also **Astronomy; Geography; Language; Mathematics; Medicine; Museum of Alexandria; Political History 323–31 BC; Scholarship, History of**

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HELLENIZATION

Hellenization denotes the spread of Hellenic culture in non-Greek, "barbarian" society and the process under which "barbarians" accept, adopt, and incorporate Hellenic culture. The term is closely connected with the Hellenistic period, which runs from the death of Alexander the Great in 323 BC to the death of Cleopatra, queen of Egypt, in 30 BC. Its earliest phase is marked by Alexander's successful invasion of the Persian empire; its termination by the repartition of the Near and Middle East between Rome and the new, Persian-ruled kingdom of Parthia. For much of the intervening three centuries the territory of the former Persian empire was dominated by a series of Macedonian-ruled states wherein Greeks and Greek culture enjoyed a pre-eminent position. Greek scientists formulated ideas and theories that would remain fundamental in a variety of fields until the Renaissance; art and literature flourished; and the foundations of western literary scholarship were laid.

The first modern appearance of the concept of Hellenism and Hellenization occurs in *Geschichte des Hellenismus*, G. Droysen's great three-volume work published between 1833 and 1843. He viewed the Hellenistic period as the time in which, in the territories conquered by Alexander the Great, Greek and Near Eastern cultures were intertwined to create the cultural background from which Christianity emerged. Archaeological excavation also played an important role in the formulation of the concept of Hellenism. The discovery in Europe and Asia of Greek sites of the Hellenistic period has provided information on the physical setting and material culture of the population of these new Macedonian kingdoms and their neighbours; and continues to do so. Archaeology has yielded a wealth of new written evidence – in the form of papyri and inscriptions on stone – which gives scholars a detailed view of the government and society of a major state, Ptolemaic Egypt. The creation in the 19th and 20th centuries of modern European empires in regions once dominated by the Hellenistic kingdoms was a further spur to reassessing the Hellenistic period. These developments encouraged scholars to see Alexander and his Macedonian successors as precursors of contemporary events. In parallel, scholarship was adding new evidence to Droysen's view of Hellenistic civilization as a mixed culture which, although Greek in character, had been enriched by the incorporation of features derived from ancient Near Eastern cultures.

Is Hellenization a term that reflects the reality of an ancient society, or a term and concept created by modern scholars in the course of their studies? Is it a tool, useful shorthand, or a phantom? According to G. Bowersock, "Hellenization is ... a modern idea, reflecting modern forms of cultural domination."

The term "to Hellenize" is first encountered in Thucydides (2. 68), where it is used in not a political but a linguistic context. The acceptance and use of the Greek language by non-Greek societies is known from periods other than the Hellenistic. For example, in the Persian empire of the 5th and 4th centuries BC, whose outlook was anti-Greek, the Greek language was adopted by the Lycian dynasts Pericles of Limyra and Mausolus. At the same time Mausolus avoided the Panhellenic sanctuaries, preferring the local Carian shrines, and denied proxeny (diplomatic representation) to the citizens of Knossos. Greek craftsmen were used widely by local rulers in Anatolia and around the Black Sea to create royal and elite culture long before the Hellenistic period, as is witnessed in the Achaemenid empire or the Thracian kingdom. But this can hardly be described as Hellenization, in which the local melds with and into the Greek. The ideology and everyday life of local rulers remained resolutely untouched; the Greek element extended little beyond a veneer of sophistication, a series of external, material attributes.

In the wake of Alexander the Great's conquests, Greeks moved to the east to populate new regions and establish new cities. Alexandria, Antioch, and other cities were founded. In the Hellenistic period Alexandria, with its library etc., can better be considered the centre of Hellenic culture than mainland Greece; Ai Khanum, Alexandria on the Oxus in northern Afghanistan, with its broad streets, monumental temples, large gymnasium, and theatre, was much more impressive than Athens. Heraclides Creticus warned those travelling from the east not to be disappointed by their first impressions of Athens and other famous cities in metropolitan Greece – the rather run-down houses, the old-fashioned streets, etc. Hellenistic historians themselves considered the new cities in Asia Minor to be melting pots in which Greek and non-Greek cultures and peoples met, mingled, and created a new cosmopolitan civilization.

Greek culture was dominant from the Mediterranean to the borders of India. Everywhere Greek was the language of government. The traditions of Archaic and Classical Greek culture were admired and followed, but not blindly; new features taken from local cultures were introduced. For example, the reliefs on the great altar at Pergamum may seem at first alien to the tranquillity associated with Classical sculpture; in fact, they resemble the sculpture on the pediment of the Parthenon. In the Hellenistic world culture was uniform only on the surface. There were differences between the culture of Aegean Greece and that of the new kingdoms of Asia and Egypt. In the former, writers and artists adhered strictly to centuries of tradition: local dialects and traditional cults and festivals flourished. From a cultural perspective an old Greece of tradition can be identified in the Hellenistic period and beyond; but in the east there was a "new Greece" which admired traditions but was not constrained by them, adding new elements and concepts absorbed from local societies, their practices and cultures. This appears to be more a case of orientalization than Hellenization, a case different from that in Greece at the beginning of the 1st millennium BC. The terminology deployed by modern academics usually fails to penetrate the intrinsic nature of the historical or cultural events in antiquity that it is used to describe. This is as true of the term "orientalization" as it is of "Hellenization". What is being described in both cases is the spread and intermixing of different cultures. In the Hellenistic period different ethnic groups absorbed Hellenic culture and transmitted aspects of their own culture to Greeks. This was a side effect of political developments. If a label has to be attached to this, then "cosmopolitanization" would be more appropriate than either "orientalization" or "Hellenization".

In the Hellenistic period in Greece the polis changed under social and economic pressure. Its political life narrowed and became harsher. New studies suggest that in the Seleucid empire the structure of the polis was less strong than traditionalists seek to depict. There was a continuity with Achaemenid Persian and Babylonian structures. The effects on Jewish culture of Hellenization on the one hand and Seleucid influence on the other remain unclear and disputed.

The Greek polis with its culture survived into the Roman period, and the Romans consolidated their rule in the east through the introduction of the polis. Evidence shows that in the Roman period the only significantly Hellenized part of the population was the elite. Roman culture itself was heavily influenced by the Greek, copying Greek sculpture, for example, and worshipping the same gods though under Roman names. Written Greek was in active use along with Latin and Aramaic. The Byzantine empire inherited not only the Greek language; Christian epigrammatists echo the idioms of their pagan predecessors.

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HERACLITUS *fl. c.*500 BC

Philosopher

A citizen of Ephesus, Heraclitus was the first philosopher to approach the study of nature from the standpoint of the human condition. Writing riddling sayings in a dense aphoristic style, which have survived as quotations in later writers, he criticized poets, philosophers, and ordinary people for their failure to see the meaning inherent in the world. There is an order in nature, a *logos* (governing principle), that is always present, but which men miss both when they experience it and when they are told the truth about it, for they move through the world like sleepwalkers. Study of the facts will not teach understanding; what is needed is an understanding of how things fit together. What the *logos* teaches is that all things are one.

Heraclitus inherited from earlier philosophers the view that some one kind of stuff is changed by transformation into all other kinds of stuff. Whereas Thales had said that everything comes from water and Anaximenes that everything comes from air, Heraclitus held that everything comes from fire. Fire turns into water and half of the water generated turns into earth and the other half back into fire, preserving the same proportions of matter through the changes (fr. 31). Unlike his predecessors,

who believed that the world came to be from unstructured matter, Heraclitus states that the world order "always was and is and will be everliving fire, kindling by measures and going out by measures" (fr. 30). It is the kindling and quenching of fire that preserves the world. By identifying fire, the most changeable reality, as the basic substance of the universe, Heraclitus seems to be stressing changeability. "Onto those stepping into the same rivers other and other waters flow" (fr. 12): the changing waters constitute the river. Thus change underlies and makes possible the structure of the world and the things in it.

According to Heraclitus, opposites are somehow one: the living and the dead, the waking and the sleeping, the young and the old are the same because they change into one another (fr. 88). The opposing tensions of the bow and the lyre make them work. Day and night are one. "The road up and the road down are one and the same" (fr. 60). What seems to make all things one is their interconnectedness in the series of transformations: there is one road with two-way traffic, one process with two-way changes going on. In the changes of fire there is a constant equivalence of material, something like a conservation of matter, which Heraclitus compares to the exchange of gold for goods and goods for gold (fr. 90). The value of the goods remains constant even though the items exchanged vary. The ultimate reality, then, is not any substance that travels the road, but the process of change itself, the law of transformations symbolized by fire. Overall, Heraclitus seems to have started with a picture of the world much like that of his predecessors, but he moved far beyond them in finding the source of unity in the world not in a single original substance such as water or air, but in a unified order of change. His predecessor Anaximander had seen cyclical changes such as day and night, summer and winter, as embodying acts of strife between opposites to be corrected by a cosmic principle of justice. Heraclitus replies that justice *is* strife, for opposition holds the world together.

Souls arise from the moist and they perish if they return to moisture. It is best for the soul to be fiery, and better souls receive a better lot after death. "Moderation is the greatest virtue and wisdom, to speak and act truly, perceiving according to their nature" (fr. 112). People should rely upon and defend their laws, but above all the one divine law by which all human laws are "nourished", presumably the *logos* (fr. 114). Human nature, then, mirrors nature as a whole, and human society is ultimately governed by the same laws as the cosmos.

In the 4th century BC Plato attributed to Heraclitus the claim that "you can't step into the same river twice" (Cratylus, 402a). The claim, which seems to be an interpretation of fragment 12 (quoted above) – perhaps one Plato got from Cratylus, a Heraclitean – suggests that for Heraclitus nothing stays the same. Plato's own philosophy was heavily influenced by the flux theory he attributed to Heraclitus: he held that the world of sensible objects was always changing. Plato and Aristotle also attributed to Heraclitus the view that opposites are identical (not just the same by virtue of being stages in a single process), which led them to say that he accepted contradictions. Henceforth Heraclitus became known in the doxographical tradition as a philosopher of flux who embraced contradiction and hence had an incoherent philosophy.

In the 3rd century BC the Stoics revived the view that all things come from fire, and also attributed to Heraclitus their view that there are periods of world-conflagration in which all substances turn back into fire, after which the world is regenerated from fire. In the early Christian era intellectuals sometimes saw Heraclitus as a proto-Christian because of his ethical views, his emphasis on *logos*, and his belief (on the Stoic interpretation) in a fiery judgement on the world.

DANIEL W. GRAHAM

See also **Philosophy**

Biography

Born in Ephesus to an aristocratic family, and active *c.*500 BC, Heraclitus identified fire as the basic substance of the universe. He also posited an order (*logos*) in nature. Only fragments of his writings survive.

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HERODAS

Poet of the 3rd century BC

So little is known about Herodas (or Herondas, as he is sometimes called) from sources besides his own poems that neither when nor where he lived and wrote can be determined with any certainty. Various chronological hints in his first, second, and fourth poems point to composition dates in the 270s and early 260s BC. If the settings of his second poem (the island of Cos) and of his sixth and seventh poems (probably in Asia Minor) may be connected with the dwelling-place(s) of the poet

himself, Herodas probably spent some periods of his life in parts of the eastern Aegean. His first poem exhibits a certain amount of knowledge and praise of Ptolemaic Egypt, but this does not necessarily indicate that Herodas lived there for some time as well (if he did, he is most likely to have lived in Alexandria).

It was through the fortunate discovery of a papyrus (British library Pap. 135, first published in 1891) that scholars gained knowledge of substantial parts of the poems of this early Hellenistic author, which exhibit many features typical of Greek poetry of that age. Seven of Herodas' poems are readable in a more or less complete form (the much more fragmentary nos. 8 and 9 are largely unintelligible); their length ranges from 85 to 129 verses, and they are collectively called mimiambs, an appropriate title for their composite nature, as on the one hand their content has much in common with the form of low-level popular drama called mime, while on the other their metrical form and language are taken from iambus, an archaic form of very personal and often invective Greek poetry whose main proponents were Archilochus and Hipponax. Mimes, too, had already existed for hundreds of years before Herodas and continued to do so until (at least) the end of antiquity; they depicted scenes of everyday life (with frequent and rather explicit inclusion of sexual themes and situations) and down-to-earth or even vulgar characters, and they were performed – depending on their length and plot – either by a single person or by a small troupe of itinerant actors; their texts were mainly in prose, and their language usually in the local dialect (Doric in Sicily and southern Italy, for example). By combining mimic content with the form of ancient iambus, Herodas gave his poems a rather rigid form. His main model being Hipponax of Ephesus (to whom he refers at the end of his eighth poem, though the badly mutilated text does not allow us to glimpse specifics), he took over Hipponax's Ionic dialect and his peculiar metre, the so-called choliambos, or limping iambic, in which the penultimate syllable – which would normally be short – is long; this introduces a rhythmical disturbance which noticeably increases the sense of mocking and ridicule of the poems' content. Even within these rigid formal boundaries the scenes and situations depicted by Herodas at first sight seem completely natural, which is a great compliment to the poet's mastery of his art.

A brief examination of the poems' content gives an idea of their characteristic features and their connections with older and contemporary literature. Remarkably often women are the main characters. In the first mimiamb (''The Matchmaker or Procuress'') a woman living alone (her companion has gone to Egypt) is visited by the title-figure, who tries to arouse her interest in another man, but is told in rather plain terms that this is out of the question. The second (''The Brothel Keeper'') is a plea spoken by the title-figure before a jury: the brothel keeper (a figure familiar from Greek comedy) accuses a foreign ship's captain of attacking his establishment in order to capture a girl, and he tries to project the image of an honest, law-abiding resident, but the poet lets the meaner sides of his character (most of all greed) peep through his words. In the third (''The Schoolmaster'') an angry mother drags her wayward son to his schoolmaster and asks him to give the naughty boy a good beating to set him on the right track again; the son, by feigning repentance, avoids the thrashing. The fourth (''The Women who Offer Thanks and Sacrifice to Asclepius'') shows two women offering a cock to Asclepius (for curing an illness) and admiring the artworks in the god's temple precinct; Herodas' contemporary Theocritus treated a similar subject in his fifteenth *Idyll*. The fifth mimiamb (''The Jealous One'') depicts the most mimic theme of all these poems, adultery (a mime preserved on another papyrus fragment, P.Oxy. 413 verso, shows many similarities). A mistress accuses her slave, whom she uses as a sexual partner, of having bestowed his favours on another woman as well and gives orders for him to be flogged and tattooed; finally, though, she accedes to a plea for mercy uttered by another (female) slave who is dear to her. In the sixth mimiamb (''The Women who are Friends [*or* In Private]'') a lady (Metro) visits her female friend (Koritto) and eagerly inquires who the crafty cobbler is who provided her with that most wonderful dildo which she has recently seen with another friend of Koritto's; Koritto is somewhat annoyed that her delightful secret is already going round, but then proceeds to reveal the cobbler's name, Kerdon, whom Metro then rushes out to find. Metro and Kerdon (now a speaking part himself) appear again in the seventh mimiamb (''The Cobbler''), where Kerdon tries his sales pitch in front of some women whom Metro has brought into his shop, and there ensues some very amusing haggling about shoes and prices (and some hinting at other leatherware as well...). In the badly mutilated eighth mimiamb (''The Dream'') the poet himself apparently speaks, relating a dream in which he takes part in a Dionysiac festival and competition; at the end he remarks on his relationship to Hipponax. Of the ninth (''The Breakfasting Women'') only fragments of the first 13 lines survive and give-no clear idea of the poem's narrative. Scholars disagree as to how these amusing pieces were presented to their contemporary audiences: by one reciter (Herodas himself?) alone or by several actors playing the various roles (ranging from two to four in the single poems)? Their very restricted length (see above) rather points to the former as most likely.

Only very few fragments of two, three, or four other poems by Herodas appear as citations in other literature, but they are very few and their meagreness shows that Herodas was not a much-studied author after Hellenistic times. He was still read, though, in Egypt in the 2nd century AD, as two papyri (Brit. Lib. Pap. 135, mentioned above, and the slightly later P.Oxy. 2326) demonstrate. Ironically, it is not a Greek, but a Roman, Pliny the Younger, who paid Herodas the biggest compliment by putting him on the same level as Callimachus in a letter to a friend (4. 3. 3). Soon after, Herodas almost completely vanished from the literary consciousness of antiquity, only to be reborn from the sands of Egypt at the end of the 19th century.

HEINZ-GÜNTHER NESSELRATH

See also **Poetry (Lyric)**

Biography

The date and place of his birth are unknown, but Herodas (or Herondas) seems to have flourished in the 270s and 260s BC, and may have lived some of the time in the eastern Aegean. He wrote ''mimiambs'' depicting scenes of everyday life. Seven poems survive largely intact, and fragments of others.

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HERODES ATTICUS *c.*AD 101/03–177

Sophist and patron

The Athenian Herodes Atticus was the most striking example in his time of the native Greek who, although highly successful within the political system of imperial Rome and perfectly integrated into upper-class Roman society, nevertheless remained entirely Greek in his cultural orientation. His full name was Lucius Vibullius Hipparchus Tiberius Claudius Atticus Herodes, and he was the son of a very rich Athenian, Tiberius Claudius Atticus Herodes, and of Vibullia Alcia, a niece of her husband. Like his son after him, the father succeeded in penetrating the highest levels of Roman administration. He was the first Greek from old Greece to reach the suffect consulship, around AD 132, and probably also its first member of the Roman Senate.

Already in his education Herodes combined Greek and Roman elements. In Greek he followed the normal upper-class curriculum of his day. He studied literature with Theagenes of Cnidus and Munatius of Tralles. In rhetoric he ordered among his teachers the Athenian Secundus as well as some of the most famous sophists of his day, Scopelian, Polemo, and the Celtic polymath Favorinus. He rounded out his education with a course in Platonic philosophy under the renowned Calvenus Taurus.

He was, however, also educated in a Roman milieu, in the family of P. Calvisius Tullus Ruso, *consul ordinarius* in AD 109 and the grandfather of the future Roman emperor Marcus Aurelius. This sojourn led not only to a familiarity with upper-class Roman society but, presumably, also to his acquiring a perfect and accent-free Latin, a valuable and uncommon asset for a Greek.

As might be expected from a son of the rich and prominent Atticus, Herodes ascended to high office in Athens. Already in his early twenties he became an *agoranomos*, a supervisor of the market; soon after, in AD 126–27, he held the prestigious post of the eponymous archon, a post that not even Hellenistic kings and Roman emperors had disdained. As an ex-archon he also became a life member of the illustrious council of Areopagus.

After his archonship at Athens, Herodes began his Roman political career. Although not clearly attested, his first office must have been one associated with the vigintivirate, possibly that of a *quinquevir litibus iudicandis*. Next, he was honoured by the emperor by being chosen as *quaestor principis*. After his tribuneship and praetorship he was appointed as a *corrector* of the province of Asia for AD 134–35. His career reached its culmination in AD 143 when, as the first Greek from old Greece, he became a *consul ordinarius*, just as his father Atticus had been the first suffect consul. Herodes was subsequently offered the chance of a proconsulship or, possibly, of a second consulship but he turned down this offer.

In addition to his political posts Herodes was also honoured with other offices of great social prestige. He was chosen to be the *agonothetes* (exhibitor) of the Panathenaic games and of the Panhellenia. He was also the *archiereus ton sebaston* (high priest of the Augusti) and the priest of the *Tobacchoi*, as well as a *sodalis Augustalis* and a *sodalis Hadrianalis*.

Herodes was also possibly the most generous private philanthropist of the Roman empire. His greatest Athenian building projects were the Panathenaic stadium, clad in white marble, and the Odeum, roofed with costly cedar. He also built a roofed theatre at Corinth and rebuilt and enlarged the stadium at Delphi. Another of his major structures was the aqueduct at Olympia to supply drinking water for the spectators at the Olympic Games. Numerous less expensive benefactions are also attested. Herodes dreamed of crowning his benefactions with an even mightier accomplishment, the building of a canal across the isthmus of Corinth, a project attempted but not completed by the emperor Nero. He did not, however, muster the courage to ask the emperor for permission.

Although famous for his philanthropy and very successful in public life, Herodes was probably best known at large as the leading figure in the Greek-language cultural movement known as the Second Sophistic. He was the acknowledged master among his fellow sophists, to wit performers and teachers of display oratory. Their show declamations were perhaps the most popular form of Greek-language artistic entertainment from the second half of the 1st century AD to the first half of the 3rd. In these performances a sophist was often expected to deliver a speech, usually on a topic of Classical Greek history proposed by the audience, with only a brief period of time allowed for preparation. Much was expected of these performers by their knowledgeable audiences. Their grasp of Greek history had to be accurate, and they were also required to be Atticists, i.e. to use a Greek borrowed from Classical Greek writers, a Greek that in vocabulary, morphology, and syntax often departed from contemporary educated speech. Above all, they had to express their subject matter in striking and original diction. In addition, the successful declaimer had to act out convincingly,

and in a euphonious voice, the historical character he was impersonating. It is noteworthy that despite his immersion in his Roman *cursus honorum* and his marriage into a patrician Roman family, Herodes entirely avoided cultural Romanization and by preference invested his artistic and intellectual energies in an art form not only entirely Greek in language, form, and content but even associated by some with anti-Roman sentiments.

As a teacher, Herodes educated many of the prominent sophists of the next generation and was honoured by being chosen as the teacher of rhetoric of the future emperors Marcus Aurelius and Lucius Verus.

The most lasting legacy of the Second Sophistic, hence of Herodes Atticus, its most resplendent representative, was to entrench among the educated the use of Koine, a common Greek that had reincorporated into itself many of the linguistic features of Classical Greek that had disappeared in oral and written usage during the Hellenistic and early Roman periods. Because this repristinated Greek was adopted by the state and by the educated in the Byzantine period, it enjoyed an existence of well over a thousand years.

Of the written works of Herodes nearly all have been lost. Philostratus, his biographer, writing in the 3rd century AD, reports as extant very many letters, speeches, and diaries, as well as handbooks and anthologies. Still extant is a speech called *Peri Politeias* (On the Constitution) attributed to Herodes by the Codex Crippsianus. It represents, perhaps, the ultimate triumph of Herodes as the perfect Atticizing sophist. The writer's knowledge of Greek history and his skill at avoiding non-Classical Greek are so remarkable that several modern scholars have deemed this speech to have been written by a Greek of the 5th or 4th century BC.

Herodes was less fortunate in his family life. He married Appia Annia Atilia Regilla Caucidia Tertulla, who came from a patrician Roman family with consuls on both her father's and her mother's side. In fact, her paternal and maternal grandfathers were joint *consules ordinarii* in AD 108. Although this marriage signified Herodes' acceptance as a member of the Roman aristocracy, his life as a husband and as a father was less than happy. Of his several children only the one he liked least, his son Bradua, probably the *consul ordinarius* of AD 185, survived him. When his wife Regilla died in premature labour, due, it was said by many, to a kick administered by one of her husband's freedmen, Herodes had to stand trial for murder on the charge of having ordered this assault. Although he was acquitted, the mere fact that so monstrous a charge could be readily believed implies a less than harmonious married life.

Herodes died at the age of 76, between AD 177 and 179, after a reconciliation with his fellow Athenians with whom he had had stormy relationships for most of his life. He received honorary burial in one of his most splendid gifts to Athens, the Panathenaic stadium.

There is no adequate biography of Herodes Atticus in English, though there is in German (Ameling) and an older one in French (Graindor). Philostratus's life of Herodes is translated in the Loeb edition (W.C. Wright), and is the subject of a detailed commentary by the present author. Albini has produced an (Italian) edition of the speech *Peri Politeias*, though he is unconvinced that it is by Herodes as some scholars believe. Herodes' monumental remains are discussed most fully by Tobin.

IVARS AVOTINS

Biography

Born in Athens *c.*AD 101, Herodes was the son of a Roman senator and followed his father into a political career, becoming consul in AD 143. Educated by many of the best teachers of Greek and Roman culture, Herodes remained entirely Greek in his cultural outlook. He endowed many buildings in Greek cities and was a major representative of the Second Sophistic movement, though most of his works are lost. He died *c.*177.

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HERODOTUS 484–*c.*425 BC

Historian

Herodotus' name is inseparable from that of his one surviving work, the *Histories*, an account of the Persian Wars (490–479 BC), fought between the Persian kings Darius and Xerxes and the cities of Greece and – very broadly defined – of the background to those wars. Though previous works, now surviving only in fragments, such as the *Genealogies* and *Journey round the Earth* of Hecataeus of Miletus, seem in some respects to have been similar in style and approach to the *Histories*, Herodotus has been recognized since antiquity as the "Father of History".

Our knowledge of Herodotus' own life largely derives from the internal evidence of his work. He was born in Halicarnassus (modern Bodrum on the southwest coast of Turkey) at some point in the first half of the 5th century BC, but left as a consequence of a period of political infighting in which his family was involved. The extent of his travels is hotly disputed. Herodotus claims to have travelled to Egypt, the Levant, and the Black Sea, but some aspects of his accounts of foreign lands – his description of unknown (or his omission of well-known) monuments, his ascription of very Greek-sounding ideas to foreign sources, and a number of fanciful details – have led many to suppose that his knowledge of foreign lands was more second-hand, the product not of personal investigation but of Greek tradition (or, less plausibly, of his imagination). At the very least it seems certain that Herodotus spent time in Samos and in Athens, both cities on which he is well informed; he is reputed to have died in the recently founded Greek colony of Thurii in southern Italy, or in Macedonia. References in his work suggest that he wrote in the early years of the Peloponnesian War (431–404 BC): the tension between Athens and Sparta, the two chief protagonists of that war, is a regular undercurrent in his account of earlier events. Possible allusions to his *Histories* in the comedies of Aristophanes, most notably the *Acharnians* and *Birds*, suggest that the work may have been "published" in a number of instalments.

Herodotus' declared object was to record the "great and marvellous deeds of Greeks and Barbarians" and in particular "the reasons why they went to war with one another". Only the last four of the nine books of his *Histories* describe the events of the Persian Wars; Herodotus' focus is much broader. His *Histories* are the chief source for the early history of Greece (from *c.*650 BC to the Persian Wars). At the same time, while tracing the expansion of the Persian empire into Asia Minor, Europe, and Egypt, Herodotus takes the opportunity to describe the customs of all those peoples in the Persians' path. These accounts are written in the present tense, as if the characters of the different peoples were timeless. They cover religious customs, sexual practices, dress, language, hairstyles, and any other "wonderful but true" stories Herodotus thinks fit to include.

The structure of the *Histories* can at first be bewildering. As he declares at one point, it is his intention to "digress" from the main course of his narrative. One such digression – on the history and customs of Egypt – takes up the whole of the lengthy second book. Nevertheless, as recent work has demonstrated, there are a number of underlying patterns to the work that are not initially evident. The search of the Lydian king Croesus for a Greek ally with whom to counter the Persian Cyrus leads Herodotus in book 1 to investigate the relative strengths of Athens and Sparta: the two cities are repeatedly juxtaposed. The close of the *Histories* used to be thought impossibly inconclusive. A number of echoes of the opening of the work reveal, however, a very polished and final ending – albeit one without any of the explicit historical conclusions that modern readers are led to expect. The last main episode of the *Histories* concerns the execution, on a site overlooking the Hellespont, of a Persian commander, Artacytes, for plundering the shrine of the hero Protesilaus. Protesilaus had been the first Greek to cross to Asia, and to die there, in the course of the Trojan Wars. In Artacytes' view, however, Protesilaus had in turn plundered his wealth from the king of Persia; for the Persians, Herodotus explains – recalling a Persian explanation of the earlier hostilities between Asia and Europe at the opening of the *Histories* – believe all of Asia to belong to their king. At the same time, the barbaric manner of Artayctes' punishment – he was nailed to a plank, his son stoned to death before his eyes – points forward to another dangerously expansionist power: the man responsible, the Athenian commander Xanthippus, was the father of Pericles, the figure most associated with Athens' subsequent empire. It has happened before, Herodotus seems to be saying; it will happen again.

The *Histories* are also a rich source of evidence for Greek attitudes and values. Most markedly, Herodotus' work is characterized by strong religious convictions: by beliefs, for example, in the likelihood of divine retribution for unjust acts or in the value of divination, by a pronounced fatalism, and by a sense – expounded most fully by the Athenian character Solon in book 1 – of the unpredictability of all human fortune. At the same time, by acknowledging the possibility, for example, of others' scepticism over divination, Herodotus frequently reflects, even if he does not follow, more sceptical currents of thought. The language and style of his argumentation also find numerous parallels in contemporary medical writings. Though his accounts of foreign peoples are moulded and structured by Greek attitudes and prejudices, Herodotus consequently provides invaluable evidence for the ways in which the Greeks perceived and understood their "barbarian" neighbours. Egyptian customs, for example, frequently mirror those of the Greeks: Egyptian women urinate in standing position and men sitting down. And the geography of Africa also inverts that of Europe: the course of the Danube provides evidence for that of the Nile.

If the allusions to Herodotus' work in the plays of Aristophanes (or of Sophocles) are accepted, this would suggest that his work quickly became well known to a large audience, at least in Athens. Later, unreliable anecdotes of public readings in Athens and at Olympia give the same impression, though they may simply be the product of a later perception of his work as populist. Thucydides, the Athenian historian of the Peloponnesian War, on a number of occasions takes for granted knowledge of Herodotus' work; by extending his *History* back to the aftermath of the Persian Wars, he may have seen himself as a continuator of Herodotus. In many ways, however – by his exclusion of the divine from history, by his more focused scope on the contemporary political and military affairs of Greece, and by pronouncements of his omission of *to mythodes*

or "the fabulous" from his work – he may have meant to distance himself from his predecessor.

Herodotus continued to be read throughout antiquity. His influence can be detected on the 4th-century BC historians Ephorus and Theopompus – who wrote an epitome of the *Histories* – and also on Callisthenes. Nearchus, Alexander's admiral, seems to have travelled and written with Herodotus' stories in mind. In the Hellenistic period also Herodotus was mined for factual information by philosophers and by poets such as Apollonius Rhodius and Callimachus as well as by historians; he was commemorated by statues in Halicarnassus and in the library of the kings of Pergamum. His reputation was double-edged, however. Dionysius of Halicarnassus praised him as a stylist rather than as a historian. Others, from Ctesias – himself notoriously unreliable – in the 4th century BC onwards, denounced him as a liar or story-teller. A number of pamphlets, most famously Plutarch's *On the Malignity of Herodotus*, criticized him for lies, plagiarism, for bias against particular Greek states, or as a "barbarian-lover". Just as the expansion of Greek interest in the Near East that followed the conquests of Alexander the Great seems to have given his reputation fresh impetus, later events also gave Herodotus new prominence. His attempts to come to terms with the customs of foreign peoples became more relevant with the discovery of the New World. In the light of the long struggle of the Byzantine empire against the Ottomans, the confrontation of Greeks and Persians also acquired particular potency, as is reflected in the work of the historian Laonikos Chalkokondyles.

THOMAS HARRISON

See also **Historiography**

Biography

Born in Halicarnassus, traditionally in 484 BC, Herodotus travelled widely, but perhaps not as widely as he would have his readers believe. He certainly spent time in Samos and Athens, and he is said to have died at Thurii in south Italy *c.*425 BC. His one surviving work, the *Histories*, is primarily concerned with the Persian Wars. But his description of the expansion of the Persian empire into Asia Minor, Europe, and Egypt leads him to describe the habits and customs of the peoples they encountered. Traditionally regarded since antiquity as the "Father of History".

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HEROES AND HEROINES

In the Homeric poems the word *heros* designates a living warrior or another individual of high social standing. It is clearly a term of respect and attaches to groups of warriors such as the Achaeans and Danaans, as well as to individuals such as Protesilaus and Menelaus in the *Iliad*, and to the poet Demodocus and the young Telemachus in the *Odyssey*. By contrast, in Greek cult the word *heros* (and later *heroine* or *heroissa*) refers to a person whose powers had been so remarkable in life that he or she was honoured in death as attaining a status between god and mortal. These cults of heroes were distinct from the family cult of the dead. The cult of heroes has been taken back to the Bronze Age, but archaeological evidence for this distinctive cult of the dead begins to appear in the early 8th century BC – the age in which the Homeric poems were taking shape and being performed throughout the Greek world. A connection between the spread of the *Iliad* and *Odyssey* and the emergence of hero cults has often been asserted, as has a connection between hero cult and the rise of the polis. The heroes of the Homeric poems – Achilles, Agamemnon, Menelaus and Helen, Meriones and Diomedes, Odysseus and Alcinous – were recipients of a hero cult both in their native countries and throughout the Greek world. Many, such as Achilles and Agamemnon, were worshipped far from their native lands: Achilles was worshipped in the Troad and Black Sea and Agamemnon in Tarentum.

This is remarkable, since it is axiomatic of the cult of heroes that these cults are tightly bound to a single place (usually a grave with its monuments) and are the expression of group identity. Although worship of heroes and heroines can reasonably be connected with the rise of the polis, the worship of the heroes of the Homeric epics, like the cult of Homer himself, is Panhellenic.

There was nothing like a cult of heroes in the ancient Near East, although Lycian dynasts adopted the cult in the 4th century BC. In the *Iliad* the descriptions of the cults of

Erechtheus and Sarpedon have plausibly been taken as reflections of Homer's awareness of hero cult. But it is only in the myth of the ages in Hesiod's *Works and Days* that the race of heroes emerges as a distinct historical phenomenon. This race is inserted in the succession of metallic ages known from the Book of Daniel (gold, silver, bronze, and iron). Coming after the age of bronze, the heroes and ''half-gods'' (*hemitheoi*) who fought at Thebes and Troy are recognized as receiving honours from the gods in death by being transported to the Islands of the Blest. But it is the men of the silver age who, dwelling beneath the earth, receive honours in death, even though they neglected the gods.

The archaeological record of a hero cult derives from the deposits at the graves and grave precincts of the dead who were recipients of the cult, and from a variety of representations of the dead as the objects of worship by the living human community. Most of these cults are anonymous. The most striking early example of such a cult is the 7th-century BC *heroon* (hero shrine) of a warrior buried with rich grave offerings in the grave complex at the west gate of Eretria in Euboea. There are later reliefs from Laconia showing the heroized dead (both male and female) seated majestically on thrones, with snakes coiling about to indicate their chthonic character as heroes. More common and dating from the late 6th century BC are the reliefs (known as banquet reliefs) that show a male *heros* reclining on a banquet couch with a *phiale* (libation bowl) or *rhyton* (drinking horn) in hand to receive the libations of the living. Such a figure is associated with a seated figure representing his wife. On the upper register of the relief are the emblems of his life: these include his weapons and sometimes his horse looking in through a window in the ''wall''. Below the couch is a table holding offerings of bread, fruit, and eggs. These are all aristocratic monuments and dedications in a sanctuary rather than grave monuments. Very occasionally dedications with inscriptions have been excavated in these grave precincts: at Mycenae one vase is dedicated ''to the hero'', another ''to Helen'', and a stele ''to Menelaus'' in Sparta.

Heracles was the archetype of the Greek hero. He was half divine and half human, with Zeus as his father and Alcmene as his mother. Herodotus reports that on the island of Thasos, where he had an important sanctuary, he received sacrifices both as an immortal and as a mortal. The one kind of sacrifice was performed on an altar and included libations, as well as the table companionship of the worshippers; the other kind of sacrifice was a holocaust and was deposited, with libations, in a pit (*bothros, eschara*); it did not involve the table fellowship of the worshippers. In the 5th century BC the worship of *heroinai* came into prominence, especially in Attica. These heroines were anonymous but they are clearly conceived of as the ancestors of the worshippers. Women did not share in what are usually counted as the four main categories of hero cult: that of the statesman, the warrior, the athlete, and the poet. Lycurgus and Chilon had their cult at Sparta; Brasidas, the Spartan general, at Amphipolis; the savage athlete Cleomedes at Astypalaea; and Archilochus had his cult on Paros. The cult of Archilochus on Paros had a history of some 800 years, and the cults of Homer throughout the Greek world were about as durable. Philosophers were also honoured by hero cults. The first cult to a philosopher we know of was Parmenides' dedication of a *heroon* to his teacher, Ameinias, in Velium (south of Naples). Cults are recorded for Pythagoras and Plato, as well as for Epicurus and his associates. These cults helped to create a sense of group identity for the members of these philosophical schools (who were most often foreigners) and gave them a kind of corporate identity.

The rise of the polis and the weakening of the grip of the great families within the Greek city state are reciprocal phenomena. The hero cult became civic and, as it did, the family cult and tending of the dead became less important, although elaborate funerary monuments persisted. Rivalling both cults was the new cult of the ruler. The cult of a living ruler emerged well before the Hellenistic age. In the early 4th century BC the Spartan general Lysander received worship on Samos, as did Antigonus II and Demetrius Poliorcetes in Athens early in the next century. With Alexander of Macedon's arrogation to himself of divine status, the cult of rulers began to rival the cult of the gods, especially in the successor kingdoms of the Ptolemies, Attalids, and Seleucids in Egypt, Asia Minor, and the east. The coinage of these states is eloquent. Where coins once showed the emblem of the city and its most important divinity (in the case of Athens the owl and Athena), the coins of Alexander and his successors displayed the portrait of the dynast as equal to the divinity of the city issuing the coin. Associated with these cults of the living ruler were sacrifices, processions, contests, and priesthoods. These paved the way for the cult of the Roman emperor and Roma in the Roman imperial period, but they were short lived and rarely survived the death of the ruler and the emergence to power of his successor.

Neither the rise of the polis nor the partial eclipse of its autonomy in the Hellenistic age arrested the continuity of the family cult and, as the franchise on heroic status became cheap, a family could declare on a small grave block or stele that this was the resting place of ''Sostratos, *heros*''. The term *heros*, once honorific, was demoted to the status of the term *makarites* in modern Greek – *heros*, like ''blessed'', simply came to mean ''departed''. Some families were wealthy and more ambitious. On the island of Thera in the late 3rd century BC an elaborate inscription describes the development of the cult that Epicteta established for her husband and her two sons who had predeceased her and, looking beyond her own death, herself. This will was ratified by the ephorate of the island and thus the private became public.

In her will Epicteta spoke of the precinct that was the centre of her cult as a *mouseion* (or place sacred to the Muses) and the individual graves as *heroa*, that is, monuments to heroes. The place of worship of heroes was often named after them: there is an Archilocheion on Paros and Homereia are known from Smyrna (where Homer was honoured with a temple and library), Chios, and Alexandria. The architectural remains of such *heroa* range from a grave and precinct to the Mausoleum of Mausolus of Caria (erected by his wife after his death in 353 BC), which was one of the wonders of the ancient world and most probably the centre of a hero cult. The Greek practice of heroizing the dead also spread to Lycia, where the grave of the local dynast Erbinna is contained in the magnificent 4th-century BC Nereid monument (now in the British Museum). The great altar to Zeus at Pergamum probably also functioned as a *heroon* to the ancestral figure of Telephus. The heroic pretensions of the anonymous *heros* buried in an elaborate temple tomb in

Calydon are clear from its iconography and the relief showing the local hero Meleager.

With the spread of Christianity, pagan forms of worship – including hero cult – were gradually suppressed. But some pagan temples were converted into early Christian churches, as the Parthenon was given over to the worship of the Virgin (Panaghia). Christian saints supplanted the heroes who had prepared the way for them and, like the heroes and heroines of the past, they had their own place of cult, the centre of their power, and their days on the calendar of the religious year.

DISKIN CLAY

See also **Dead, Cult of the**

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HERON

Mathematician and astronomer of the 1st or 2nd century AD

Very little is known about Heron of Alexandria, and we cannot even be sure when he lived (dates from the 2nd century BC to the 3rd century AD have been suggested). He does, however, seem to he aware of the Romans, and in one of his works an argument uses as an illustration an eclipse of the moon observable in both Rome and Alexandria ten days before the spring equinox. The only such eclipse that took place in the range of periods in which Heron might have lived was in AD 62 (on 10 March). Since there is also some indication that the astronomer Ptolemy, writing in the 2nd century AD, was familiar with more sophisticated mathematical methods than those of Heron, then a date in the late 1st or early 2nd century AD looks plausible.

Heron is the author of 11 surviving treatises, largely on the practical applications of mathematics and mechanics. As practical handbooks they seem to have been modified and partially rewritten in the course of time to meet the needs of later users, and in some cases there are doubts as to how much really goes back to Heron.

The *Metrica* deals with methods of calculating areas and volumes; the *Definitions* is a collection of geometrical terms, and is probably a Byzantine compilation; the *Catoptrica* (which survives only in a medieval Latin translation) is on the mathematics of mirrors and their practical use; the *Geometrica* is a rather unstructured introduction to geometry; the *Stereometrica* deals with the theory of measuring volumes, and goes on to describe its practical application; the *Belopoieca* and the *Cheiroballistra* describe the construction of different kinds of catapult; the *Dioptra* concerns surveying, and particularly the use of the plane table; the *Mechanica* (which survives only in Arabic translation, though substantial fragments of the Greek text are preserved by Pappus) starts with simple theoretical mechanics, and goes on to describe mechanical devices such as the windlass, the lever, the screw, and the pulley, and shows how they can be used to move heavy weights; the *Automatopoietike* is about the construction of automata (largely for entertainment); and the *Pneumatica* describes devices worked by compressed air, steam, and water. A number of other works are credited to Heron, including a commentary on Euclid's *Elements*, of which a few fragments are preserved in quotations by other authors.

Although some of Heron's works contain mathematical material in the same form, and with the same goals, as traditional Euclidean geometry, what is interesting is that he reveals that Greek mathematics was not restricted to those fields in which they were capable of devising formal proofs. He also shows how Greek mathematics could be adapted to practical use. Many procedures are carried out by the application of formulae, as they are today. He knows the formula for calculating the area of a triangle if the length of the sides is given, and another for approximately calculating a cube root, and his method of solving quadratic equations is very close to the one used today. While mathematics in the Euclidean tradition is interested in producing irrefutable proofs, and absolute precision and certainty, Heron does not hesitate to give approximate results, of a kind perfectly adequate for practical purposes. It is very much the kind of mathematics that had long been practised by the Babylonians and the Egyptians, and shows that this tradition of practical mathematics continued to develop among the Greeks alongside the Euclidean tradition that we think of as more characteristically Greek. Heron often illustrates his procedures by examples drawn from real practical situations, such as calculating the capacity of a theatre, a barrel, a well, or the hold of a ship.

He is, however, best known for his descriptions of machines, gadgets, and automata, which preserve some of the few pieces of evidence we have of the application of Greek science to practical technology. He provides, for example, one of the few instances from antiquity of harnessing the power of the wind by means of a windmill; in the example he gives, it is used to drive a

mechanical organ. He describes a crude steam turbine in which steam created by boiling water in a cauldron is piped into a ball through tubes on which the ball is pivoted, and allowed to escape through outlets that drive the ball round; he also gives an account of a force pump for use in a fire engine. Many of the machines he describes are designed to amuse or impress. For example, he tells us how to construct a vessel that will, by the manipulation of air inlets, dispense pure wine, wine mixed with water, or plain water (which Heron thinks might be a good joke to play), lie describes two different ways of making a model temple whose doors will open of their own accord when a fire is lit on the altar, and another device makes a trumpet sound when a door is opened. He also describes a vending machine that dispenses water (presumably for purification purposes) when a coin is inserted, and gives an account of how to build toy theatres, where the figures are made to move by the force of millet seed or sand trickling out of a container.

It is hard to say how many of these devices were ever actually built or put into use (though some of Heron's descriptions do seem to bear the marks of practical experience). The argument sometimes put forward that Heron's work demonstrates that industrialization was well within the grasp of Greek engineers, but that they were prevented from progressing by social or ideological considerations, is quite misplaced. In most cases, the technology of the day was not sufficiently advanced to enable the construction of more than very small devices. In the case of the steam turbine, which is often cited in this argument, the form in which Heron describes it could hardly have had a practical application. The weak point of the device is the joint between the steam pipes and the ball, which must be tight enough to prevent steam escaping, but loose enough to allow the unimpeded movement of the ball. It has been calculated that the efficiency of such a machine would be no more than 1 per cent; consequently, the effort required to gather fuel and stoke the boiler would be many times greater than any work produced.

RICHARD WALLACE

See also **Technology**

Biography

Heron was born in Alexandria but little else is known of his life. He may have lived in the 1st or 2nd century AD. He wrote widely on mathematics and the practical applications of mathematics, notably machines, gadgets, and automata. He drew on Babylonian sources as well as the Euclidian tradition.

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HEROPHILUS *c.*330–*c.*260 BC

Physician

Herophilus of Chalcedon, an Alexandrian physician, was one of only two ancient scientists (the other being Erasistratus of Ceos) to perform systematic scientific dissections of human cadavers. According to controversial but plausible ancient evidence, he and Erasistratus also performed vivisections on condemned criminals handed over to them by autocratic Hellenistic rulers. Herophilus' pioneering use of human dissection led to numerous remarkable anatomical discoveries, among them his discovery of the nerves, his distinction between sensory and "voluntary" (i.e. motor) nerves, and his description of the paths and functions of at least seven pairs of cranial nerves, including the optic nerve and the oculomotor nerve. He also identified several ventricles of the brain as well as some fine cerebral and vascular structures. Discovering a cavity in the floor of the fourth ventricle of the brain, he named it *kalamos* ("reed pen") because of its resemblance to the carved-out groove of a writing pen. This is but one of his many contributions to modern anatomical nomenclature (*calamus scriptorius*). The confluence of the four great cranial sinuses still bears the name of its discoverer: *torcular Herophili*. His meticulous dissection of the eye also allowed him to become the first to distinguish between the cornea, retina, iris, and chorioid coat.

Herophilus' anatomical investigations yielded considerable advances in the description and understanding of other organs too. An extant fragment from book 1 of his *Dissections*, for example, preserves the first reasonably accurate and detailed description of the human liver, while fragments of book 3 preserve his anatomical account of the male and female reproductive parts. Using the analogy of the male testicles, he discovered the ovaries or, as he called them, female "twins" (*didymoi*, "twins", being a traditional term for the testicles). His investigation of the uterus and of the ovaries also led to his discovery of the Fallopian tubes, although (as Galen was delighted to emphasize) Herophilus failed to recognize their true course and their function. From book 4 of *Dissections* fragments of his extensive anatomy of the vascular system survive, including some concerning the anatomical distinction between veins and arteries, the heart valves, the chambers of the heart, and various complex vascular structures.

Closely linked to Herophilus' radically new anatomical version of the human body was his physiological model of the body. The aim of his dissections and vivisections of humans and animals apparently was not only to *describe* various internal parts of the body, but also to uncover and explain their *functions*. Although insisting that all causal explanation is "hypothetical" or provisional, he freely offered causal accounts of respiration, pulsation, sensation, reproduction, dreams, and physical as well as mental diseases. Locating the "command centre" (*hegemonikon*) of the body in the fourth cerebral ventricle, i.e. in the cerebellum (which is in fact responsible, *inter alia*, for muscular coordination and for the maintenance of physical equilibrium), Herophilus apparently argued that neural transmissions occur by means of *pneuma*, a breath-like substance that runs from the brain through the nerves. This *pneuma* is ultimately derived from the external air through respiration.

Pneuma is present not only in the nerves, according to Herophilus, but also in the arteries, mixed with blood, whereas the veins carry only blood. This uncanny, though not precise, parallel to the modern recognition that the arteries carry oxygenated blood ("blood with *pneuma*" in Herophilus' model) from the heart, whereas the veins convey deoxygenated blood ("blood without *pneuma*", according to Herophilus) triggered a controversy that lasted many centuries, but in the end it was Herophilus' view that prevailed, not least because the influential Galen accepted it, albeit with certain elaborations.

Herophilus' pioneering treatise *On Pulses* became the foundation of practically all ancient pulse theories, as becomes evident in Galen's voluminous accounts of pulse lore. A "power" or "faculty" (*dynamis*) flowing from the heart through the muscular walls of the arteries causes the regular dilation and contraction of the arteries; the words "diastole" and "systole" are further examples of Herophilus' many enduring contributions to medical terminology. The pulsating arteries continuously "pull" the mixture of blood and *pneuma* from the heart, and distribute it to all parts of the body. Using musical analogies, Herophilus described the changing relations between *diastole* and *systole* at different stages of life as successively displaying pyrrhic, trochaic, spondaic, and iambic rhythms, i.e. in infancy, childhood, adulthood, and old age, respectively. So confident was he in the diagnostic value of the pulse that he constructed a clepsydra, adjustable for the patient's age, to measure his patients' pulse rates.

In his *Midwifery* Herophilus apparently tried to demystify the uterus by asserting that not only is it constituted of the same material elements as the rest of the body but it is also governed by the same "powers" or "faculties". Certain "affections", he said, are of course experienced only by women (conception, parturition, lactation), but there is no disease peculiar to women. His discovery of the broad ligaments, which hold the uterus in place, challenged the traditional Hippocratic theory that hysteria or hysterical suffocation is caused by the "wandering womb". The causes of difficult childbirth, the normal duration of pregnancy, the benefits and disadvantages of menstruation, and whether the foetus is a living being are further subjects treated in this work. Tertullian, who vigorously objected to Herophilus' use of human dissection and vivisection, also charges Herophilus with the possession of an instrument known as "foetus-slayer", implying that he performed abortions.

His semiotic theory of diagnosis, known as a "triple-timed inference from signs", his descriptions of the symptoms and causes of numerous physical and mental disorders, and his classification of dreams are among further achievements that provoked both admiring approval and resistance throughout antiquity.

Herophilus' revolutionary discoveries transformed Greek theoretical medicine, but it is difficult to assess their influence on ancient and Byzantine medical practice. Furthermore, resistance to his innovative methods, notably to human dissection, was immediate and forceful. Moral and religious scruples about dissection found a powerful ally in the methodological and epistemological objections of the Empiricists, a new medical "school" founded in Alexandria by Philinus of Cos, a renegade pupil of Herophilus. Although Herophilus had his followers, too – the history of the "Herophilean school" can be traced in Alexandria, Asia Minor, and elsewhere from the 3rd century BC to the 1st century AD – they never seem to have mounted an effective defence of human dissection against the Empiricists' claim that it is a clinically irrelevant and epistemologically suspect method of investigation. Herophilus' discoveries and theories nevertheless continued to have an impact, in large measure thanks to their transmission by an appreciative though not uncritical Galen, by Soranus of Ephesus, by early Byzantine medical encyclopaedists (Oribasius, Aëtius of Amida, Paul of Aegina), and by Hippocratic and Galenic commentators. When systematic human dissection was resumed in the Renaissance, the superior accuracy of Herophilus' observations was recognized anew. In the 20th century, too, innovative theorists have continued to recognize the value of some of Herophilus' insights, even if, in certain cases, reluctantly. In *The Interpretation of Dreams*, for example, Sigmund Freud comments: "I am far from seeking to maintain that I am the first writer to have the idea of deriving dreams from wishes. Those who attach importance to anticipations of this kind may go back to Classical antiquity and quote Herophilus."

HEINRICH VON STADEN

See also **Anatomy and Physiology; Health**

Biography

Born in Chalcedon *c.*330 BC, Herophilus was a pupil of Praxagoras of Cos before moving to Alexandria. There he performed systematic dissections of human cadavers (and, according to some sources, vivisections on condemned criminals) which led to many important anatomical discoveries and transformed theoretical medicine. His writings included the treatises *Dissections*, *On Pulses*, and *On Midwifery*. He died *c.*260 BC.

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HESIOD

Epic poet of the 8th or 7th century BC

The works of Hesiod, like those of Homer, deal with two disparate themes. Unlike the *Iliad* and *Odyssey*, however, which are long narratives composed to entertain, Hesiod's *Theogony* and *Works and Days* are shorter poems, instructive in their purpose. They are best understood within the framework of traditions of cosmogonical and wisdom literature prevalent in the ancient Near East (although not only there).

The *Theogony*, which seems to have been composed first (see below), deals with the creation of the universe and its peopling with gods in their generations and their semidivine offspring.

After an opening hymn to the Muses and an invocation, the poet goes through divine genealogies from Chaos to the Olympians, the narrative being underpinned by the separate episodes of the divine succession myth, wherein Uranus gives way to Cronus, and Cronus and the Titans to Zeus. The poem ends – or peters out – with a catalogue of the children of goddesses and mortal men, which is closer to the later catalogue of mortal women who lay with gods than to the genuine poetry of Hesiod. Both the creation and succession myths of the *Theogony* have close parallels in oriental mythology.

After a brief introduction, most of the *Works and Days* is cast in the form of an admonition to the poet's unsatisfactory younger brother Perses. Hesiod then tells a story of Prometheus, whose deception of Zeus (over the allocation of shares in animal sacrifice, and the theft of fire, which he gave to mankind), which earned Prometheus agonizing punishment, is described at length in the *Theogony*. Here the earlier story is briefly alluded to, and its sequel is told: in revenge for the theft of fire, Zeus creates Pandora, whom he gives to Prometheus' late-thinking brother Epimetheus, with disastrous results, namely the release of evils upon mankind. The poet is then reminded of another story that traces in a different way the degradation of the human condition. This is the myth of ages, gold–silver–bronze–iron, with the insertion between the last two of the age of heroes who fought at Thebes and Troy. Hesiod then addresses the *basileis*, the chieftains whom Perses appears to have suborned, and Perses. In the bulk of the rest of the poem he gives Perses – who seems somehow to have lost his fortune and to be in need of practical instruction – advice on the agricultural tasks appropriate to each season of the year. A section on domestic and social matters follows, and the poem concludes with an almanac of the days of the month (the "Days" of the title). The motifs of giving advice to a younger person, and the myth of ages, have parallels with eastern literature, but, as with the traditional elements in the *Theogony*, it is not possible to trace any kind of line of descent. It is to be noted as well that, despite the differences in scope and subject matter, Hesiod and Homer both composed in the same artificial epic dialect, which seems to have originated in Aeolis and Ionia, and clearly belong to the same epic tradition.

Hesiod differs from Homer not only in the nature and scope of his work, but also in the way that he presents himself to his audience. Whereas Homer is self-effacing to the point of anonymity, Hesiod goes to great pains to present and identify himself as a man with a name and occupation of his own, living in a specific milieu and with a specific background. How much of this is genuine, and how much convention, is difficult to say, but where the details he gives can be checked they seem to confirm his story. For example, he claims to live at Ascra, near Mount Helicon. The site has been identified, and his description of the local microclimate is valid even today. He says that his father came from Cyme in Aeolis to settle at Ascra, understandable enough in that he would have moved from one Aeolic-speaking place to another.

The relative dates of Hesiod and Homer (whether he be poet or redactor) are still unsettled, but it seems to be generally agreed that their lifetimes overlapped, near the turn of the 8th and 7th centuries BC. In the *Works and Days* Hesiod reveals that he once won a tripod for a poem sung at the funeral games for Amphidamas of Chalcis: it is generally agreed that the prize poem was the *Theogony*. In both poems the poet speaks freely of himself and his circumstances. Other poems attributed to Hesiod – the *Shield of Heracles* and the various *Catalogues* – are generally, and probably correctly, held to be creations of various authors of the 6th century BC. Hesiod's position as an author within the genre is obfuscated by the fact that later ancient scholarship lumped together under his name all other catalogue poetry, as it attributed all other military epics to Homer.

The earliest critical edition of Hesiod's text was made by Zenodotus of Ephesus, the first librarian of Alexandria, followed by Aristophanes of Byzantium (3rd-2nd century BC) and Aristarchus (2nd century BC). These and other Alexandrian scholars more or less established the text (and several of its recurrent problems, such as the authenticity of the last part of the *Works and Days*, and of the lesser poems). Substantial commentaries were written by Plutarch (1st–2nd century AD), Proclus (5th century AD), John Tzetzes (12th century), Planoudes (13th century), Moschopoulos (13th–14th centuries), and Triklinios (14th century).

ALBERT SCHACHTER

See also **Poetry (Epic)**

Biography

An approximate contemporary of Homer, Hesiod (*fl. c.*700 BC) lived at Ascra in Boeotia where his father had settled after leaving Asia Minor. He is the author of two surviving epic poems, the *Theogony* (on the descent of the gods) and the *Works and Days* (on agriculture and the just life). Other poems have been falsely attributed to him.

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HIERON I

Tyrant of Syracuse *fl.* 478–466 BC

In 480 BC, two years before Hieron I succeeded his brother Gelon as tyrant of Syracuse, the city's position as a major power among the western Greeks was confirmed by the decisive victory

of the combined forces of Gelon and Theron of Acragas over the Carthaginians at Himera. The resulting security was one of the major factors that enabled Hieron to extend his power and to establish a court famed – not least because it was the poets' job to praise him and his followers – as a centre of artistic patronage.

Hieron had already exercised authority since 485 BC as governor for his brother of Gela, their ancestral home. In Syracuse he consolidated the alliance with Acragas by marrying Theon's niece. (The link had temporarily been threatened, early in the reign, when his disgruntled brother Polyzalus, now governing Gela, attempted to form an alliance with Theron against him.) Outside Sicily, he soon laid claim to larger Panhellenic power or at least prestige. In 477 BC he was able effectively to order Anaxilas, ruler of Rhegium and Messana, not to attack Locri Epizephyrii. (Anaxilas had already been pressurized after Himera into abandoning relations with Carthage and marrying his daughter to Hieron.) In 474 BC he helped Cumae to defeat an Etruscan fleet, a success that poets were not slow to compare to the battle of Salamis, enhancing the tyrant's image as the defender of the western Greeks against barbarians. (The eastern Greeks had been similarly defended at Salamis.)

Hieron's ability to promote this image was much enhanced by his acquisition of the presence or services of poets from the Greek motherland including Aeschylus, Pindar, and Simonides of Ceos and his nephew Bacchylides. (Xenophanes of Colophon also came to Hieron's court but probably more briefly.) The most widely known celebrations of Hieron were those in the epinician odes of Pindar (*Olympian* 1, *Pythians* 1–3) and Bacchylides (*Odes* 3–5) for the victories of his teams in chariot and horse-and-rider events. The tyrant's building of a new stone theatre in Syracuse (*c.*475–470 BC), replacing a largely wooden one, also helped to proclaim his glory. Here, probably, was staged the Sicilian production of Aeschylus' *Persians* with its potential comparisons between Salamis and Cumae; possibly also, Tommaso Guardì suggests, Phrynicus' similarly appropriate *Phoenician Women*. (Epicharmus, the Sicilian comic playwright, no doubt also produced work – possibly including more by way of implied criticism of the tyrant – for Hieron's court.)

In 472 BC Syracuse became unequivocally the strongest force within Sicily when Hieron defeated Thrasydaeus of Acragas, Theron's less effective successor. Probably at this point Hieron could have installed his own dependants as tyrants of Acragas and Himera; James F. McGlew argues that his reason for not doing so was the desire to represent himself "as the liberator of the politically oppressed cities of Sicily". The cities he himself had most oppressed were Catana and Naxos, which were destroyed in 476 BC after the removal of their entire population to Leontini. (Hieron's help for Chalcidian Cumae may, as David Asheri says, have been designed to "obscure the memory" of his treatment of these fellow Chalcidian foundations.) Catana was refounded as Aetna and repeopled with 10,000 Dorians (half from Syracuse, half from the Peloponnese). One motive for this action was clearly, as Diodorus says, to obtain "from the recently founded city of 10,000 men ... the honours accorded to heroes"; at his death the tyrant indeed received these honours "as having been the founder of the city". Literature again helped to celebrate the founder and to inaugurate his settlement: Aeschylus wrote his lost *Women of Aetna*, performed in the new city probably in 471 BC, and Pindar saluted Aetna in the first Pythian ode and its governor, the loyal Chromios, in the first and ninth Nemean.

Another motive for founding Aetna was, as Diodorus realized, "to have a substantial help ready at hand for any need that might arise". When the crisis came with the expulsion of Thrasybulus, Hieron's brother and successor, the colonists supported him and were themselves expelled from Aetna, which became Catana once more; transferred to Inessa, they continued, according to Diodorus, to honour Hieron as their founding hero. No doubt they would have approved of Pindar's ideal Hieron, "gentle to citizens, not begrudging to good men, and to guests a wondrous father" (*Pythian* 3); it is less certain where the truth lies between this image and that constructed by Diodorus or his source – Hieron as "avaricious and violent and, generally speaking, an utter stranger to sincerity and nobility of character". (Gelon's rule was milder than Hieron's, says Diodorus; that of Thrasybulus, the last of the Deinomenid tyrants, on the other hand, was distinctly worse – he murdered many citizens, confiscated people's property, and was rapidly overthrown.) Hieron was clearly good at seizing the main chance and at claiming, through his poets as well as his deeds, the attention of posterity. Xenophon, for instance, uses his name if little else for the tyrant who debates with Simonides the advantages and disadvantages of tyranny in his *Hieron*. But, like many other Greek tyrannies, his did not survive into the next generation. It relied largely on force. It was underpinned by no constitutional theory, uncertain of its own position. (Finley finds a "touch of reticence" in the failure of Theron, Gelon, and Hieron to put their names, titles, or symbols of office on their coins – a result perhaps of a desire for Panhellenic acknowledgement at a time when tyranny was no longer fashionable in Greece proper, where "tyrant" was, for the first time, becoming a synonym for "despot".) But Hieron's concern with military matters allowed commerce and agriculture to thrive; Asheri goes so far as to say that (except for the suffering of such unfortunates as the people of Catana) his rule was "a golden age for Syracuse".

MARTIN GARRETT

See also **Sicily**

Biography

Hieron ruled Gela from 485 to 478 BC as regent for his brother Gelon. On Gelon's death (478) Hieron succeeded him as tyrant of Syracuse. Under Hieron Syracuse became the most powerful state in Sicily and he gained a reputation as defender of the western Greeks. He enhanced his prestige by attracting to his court poets such as Aeschylus, Pindar, Simonides, Bacchylides, and Xenophanes. He died at Aetna in 466 BC.

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HIERONYMUS OF CARDIA *c.*364–?260 BC

Administrator and historian

Hieronymus made his name in antiquity mainly as a historical figure – a friend and ambassador of kings, a military man with a remarkable fighting record, a local governor and administrator, someone who managed to survive by switching sides at the right moment, and as a *makrobios* (long-lived person) who, notwithstanding his many wounds and war toils, reached the respectable age of 104 (Jacoby, 1962, no. 154, TT2, 6–8,). His merits as a writer and as a historian were less admired in antiquity. His work was never seen as a breakthrough in the development of Hellenistic historiography. The influence of his predecessors can be detected in the scanty remains of his work (of which even the title, or rather its contents, is variously reported). Thucydides and Xenophon might have taught him that serious history must be contemporary and "pragmatic" –that is, eyewitnessed and followed closely by an actively participating historian. His ethnogeographical introductions and digressions remind us of Herodotus. Perhaps Theopompus was his model for a new kind of historywriting in making a king or a great individual the centre of the narrative. Thanks to such traits, Hieronymus belongs to the large crowd of Alexander historians, most of them his contemporaries. Finally, his easy access to documents and memoirs kept in the chancelleries of his masters (Eumenes, Antigonus Monophthalmus, Demetrius Poliorcetes, Antigonus Gonatas) may have influenced his style.

Ancient references to his work outline to some extent Hieronymus' impact on his successors. The first to show some acquaintance with the early literary reputation of Hieronymus is Moschion (late 3rd–early 2nd century BC), the author of a paper in honour of Micron II of Syracuse, who states that Hieronymus was much admired for his account of the carriage built to convey the body of Alexander the Great (F2). His description of the Dead Sea and its asphalt was noticed by the Hellenistic Florentine Paradoxographer (F5=10 Stern). These two early examples show what kind of material impressed most of Hieronymus' early readers. In the 2nd century BC Agatharcides of Cnidus was aware of Hieronymus' long career (T2); it is remarkable, however, that Polybius, though a great advocate of "pragmatic" history, does not mention him. In the 1st century BC Diodorus mentions Hieronymus four times as a historical figure and as the author of a history of the Diadochi (TT3–6), but he never quotes him as a source in his books 18–20, covering the same period. Dionysius of Halicarnassus, writing in the time of Augustus, includes Hieronymus in a list of historians that "no one can bear to read to the final flourish" (T12). The same Dionysius nevertheless pays homage to Hieronymus for being the first to touch upon the antiquities of Rome (F13). Dionysius' contemporary, the geographer Strabo, took an interest in Hieronymus' ethno-geographical digressions on Corinth, Thessaly and Magnetis, and Crete (F16–18). In the late 1st century AD Josephus complained that Hieronymus omitted in his book any mention of the Jews, although he served in Syria and lived in their vicinity, and concluded that some "bad feeling" must have dimmed Hieronymus' understanding to see the truth (F6). Plutarch used Hieronymus for his *Lives* of the Diadochi, and quotes him as a source in his *Life of Pyrrhus*, but surprisingly not in his *Lives* of Eumenes and Demetrius. He quotes him together with Dionysius of Halicarnassus on the number of the dead at the battle of Heraclea (F11), while on those at Ausculum he quotes him together with Pyrrhus' *Hypomnemata* (which may have been quoted by Hieronymus himself). He is also quoted, together with Phylarchus, for a marginal detail of Pyrrhus' Spartan campaign (F14).

In the 2nd century AD Appian quotes Hieronymus in his *Mithridatica* as saying that Alexander never came into contact with the peoples of Cappadocia, a view rejected by Appian himself (F3). In all likelihood, Hieronymus was Appian's main source on the life and death of two early Cappadocian rulers Ariarathes and Mithridates. But the most interesting piece of evidence on Hieronymus' reputation in the 2nd century AD comes from Pausanias, who in a section on Lysimachus includes a reference to Hieronymus' reporting that Lysimachus, during his war against Pyrrhus, destroyed the tombs of the Epirote kings. This story seemed "incredible" to Pausanias, considering that Hieronymus "had a reputation generally of being biased against all kings except Antigonus", that "it was malice that made him record that a Macedonian desecrated the tombs of the dead", and that "possibly Hieronymus had grievances against Lysimachus, especially his destroying the city of the Cardians and founding Lysimachia in its stead" (F9, T11). The charge of partiality is repeated by Pausanias in connection with Pyrrhus' death at Argos, Hieronymus' version being "different" from the one given by the Argives themselves. Pausanias was not surprised, for "a man who associates with royalty cannot help being a partial historian" (F15). He does not bother to tell us what was Hieronymus' version, but it evidently was not a supernatural one like that of the Argives.

The last references to Hieronymus in Roman times come from Athenaeus and from a treatise attributed to Lucian. Athenaeus includes Hieronymus in a list of historians recording the length of Perdiccas' reign (F1). This may show that Hieronymus probably had an introduction, or a digression, on the earlier kings of Macedon. Finally, pseudo-Lucian's *Makrobioi* includes four entries of Hieronymus', giving the ages of Ariarathes, Mithridates, Lysimachus, and Antigonus Monophthalmus at their deaths.

No extant Latin author ever mentions Hieronymus, not even Eumenes' biographer Nepos, nor Quintilian in his brief survey of Greek historians (10. 1. 73–5). In Byzantine times, Stephanus of Byzantium apparently did not find in Hieronymus any toponym worth mentioning, and his history was not among the books left unread by Photios' brother Tarasios. Yet, the concise entry in the *Suda* lexicon (T1) shows that he was not altogether forgotten.

In sum, judging from the named fragments, it must be concluded that Hieronymus did not enjoy great popularity in antiquity. His ethnogeographic digressions attracted readers more than his main political and military narrative, and he was much consulted for his numbers – years of age, numbers

of dead in battles, lengths of reigns, and measures. He may have been used by historians extensively, but since they rarely acknowledge their debt to their predecessors, the result was that in antiquity nobody ever suspected that Hieronymus may be hidden in Diodorus' books 18–20, or in Plutarch's biographies of the Diadochi. Only in modern times was Hieronymus elevated to the rank of a great historian. On the basis of the widely accepted hypothesis that Diodorus' books 18–20 are basically taken from Hieronymus, scholars tried to reconstruct his work, to assess its value as a history book, and even to redeem its style (although not one verbal quotation of him is preserved). Thus, he has been eulogized for carefully collecting documents, for being a representative of "scientific historiography", for his "lively and lucid narrative", and for his "most appealing" section on Eumenes (on whom he is never actually quoted). The truth is that the case for finding Hieronymus in Diodorus is rather weak. No argument in favour is truly compelling. Diodorus never mentions him as a source, and the correspondence of some five named fragments to Diodorus is only partial, an argument that may be used not for but against Diodorus' dependence on him. Hieronymus is indeed an excellent example of the modern ability of resurrecting a figure that in the Hellenic and Byzantine tradition was only a marginal one.

DAVID ASHERI

See also **Historiography**

Biography

Born *c.*364 BC at Cardia in the Thracian Chersonese, Hieronymus served on the staff of his fellow Cardian Eumenes, and then with Antigonus Monophthalmus, Demetrius Poliorcetes, and Antigonus Gonatas. He is the author of a history (lost) spanning the years from the death of Alexander the Great (323 BC) to at least the death of Pyrrhus (272 BC). He is reputed to have lived to the age of 104.

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HIPPARCHUS

Astronomer, geographer, and mathematician of the 2nd century BC

Hipparchus, the first astronomer to combine observation and trigonometry, was born in Nicaea, Bithynia, and flourished in the middle of the 2nd century BC, the years of his recorded observations being between 147 and 127 BC. Ptolemy gives dates for Hipparchan observations as early as 162 BC, but this date is suspect. Quite unlike other scientists in antiquity, whose biographies tend to be preserved in anecdotal gems, Hipparchus' life is poorly known. The single biographical anecdote, that he once attended the theatre in a cloak because he had predicted rain (Aelian, *De Natura Animalium*, 7. 8), is probably spurious. Hipparchus is said to have observed in Nicaea, and Nicaean coinage of Roman imperial date bears witness to that city's claim to his heritage. There is no good evidence, contrary to some opinions, to associate Hipparchus with Alexandria (see Dicks, 1960, pp. 5–8); however, he often refers to Athens, and frequent references to Rhodes suggest that he spent much of his career there.

Although Hipparchus' writings are almost entirely lost, at least 14 separate treatises are known by title; these cover specialized approaches to issues in astronomy, mathematics, and geography. Only one of his works survives in more than just a handful of disparate fragments. Still, judging by the treatment his opinions receive from subsequent authors, it is clear that Hipparchus' contribution in several areas was significant.

Hipparchus' mathematical and astronomical concepts allowed him to predict both solar and lunar eclipses: presumably he published these, and Pliny (*Naturalis Historia*, 2. 54) says that Hipparchus predicted both types of eclipses for a period of 600 years. Whether these data were actually calculated by Hipparchus or digested by him from Babylonian sources remains unclear; but his combination of Babylonian and Greek intellectual traditions produced astronomical knowledge of crucial importance well beyond Ptolemy's transmission of it. Ptolemy, who wrote in the 2nd century AD, had studied Hipparchus carefully but was more interested in improving upon Hipparchus' data than he was in preserving them. Hipparchus, however, retains the distinction of having turned astronomy into a mathematical, predictive science. Dicks (p. 11) regards him as a scientist who was "patient, painstaking, accurate, unwilling to theorize except on definite data which can be scientifically checked and verified, content if his work makes even a small contribution to the general body of knowledge".

Hipparchus was the first to use trigonometry in a precise method – i.e. not by estimation as Aristarchus and Archimedes had – and was the first to construct a chord table, the first clement of trigonometry (see *On Chords in a Circle*). His general solution for trigonometrical problems was "as effective as, if more cumbersome than, those of modern trigonometry" (Toomer, 1978, p. 209). Using this tool, Hipparchus calculated the parallax of celestial objects and accurately calculated both solar and lunar parallax. The latter calculation, 58', differs from

the International Astronomical Union's value of 57.02'.688'', or by less than 2 per cent. Indeed, most of Hipparchus' figures are of similiar accuracy, e.g. his calculated length of the tropical year (365.2467 days) differs from the modern value by just 0.0042 of one day, or about six minutes. Concerning his measurement of the sun's size and distance from the earth with crude and scanty data, Toomer (p. 215) calls Hipparchus' methods "a tour de force". Hipparchus' solar theory was adopted by Ptolemy unchanged, and others, including Vettius Valens, used it as well. He observed a 2-degree precession of Spica over 154 years, between Timocharis' observation and his own (made in 130 BC), and thus anticipated the precession of the equinoxes, and calculated the time it takes for the equinoctial points to make a complete revolution around the earth's celestial perspective. For tools, Hipparchus seems to have used a diopter and a celestial sphere; he may, in fact, have invented the plane astrolabe.

Hipparchus' *Commentary on the* Phaenomena *of Aratus and Eudoxus* contains less of the scientific calculation and explication than we might expect to find in his works. It is, nevertheless, important as a representative of this writer, since it contains much solid argument and not a little of the urgency that Strabo saw in Hipparchus' dispute with Eratosthenes' geographical treatise. About a century before Hipparchus' birth, the Alexandrian poet Aratus had written his great didactic poem on the constellations. Drawing freely upon the astronomy of Eudoxus of Cnidus (*fl.*340 BC), Aratus composed the *Phaenomena* (*c.*276 BC). To the astronomer possessed of mathematical and observational skills, the eloquence of Aratus' poetry could not compensate for the poem's factual errors. The addressee of the *Commentary*, the otherwise unknown Aeschrion, had shown interest in the poem's astronomy and thus receives from Hipparchus a detailed criticism of its astronomical fallacies. The *Commentary* consists of three books, which comprise extensive criticism of both Aratus' poem and its fundamental basis provided by Eudoxus, and detailed listings of simultaneous risings and settings of constellations. Additionally, Hipparchus addresses mistaken beliefs of his own contemporaries, specifically those of the mathematician Attains (*fl.* mid-2nd century BC). Arguing against the entrenched popularity of Eudoxus, Aratus, and Attalus, however, proved unsuccessful. Still, painstaking analysis of the data in the *Commentary* "has revealed, and will reveal, a surprising amount" about ancient misunderstandings of Hipparchus and the importance of his research (Toomer, 1978, p. 208).

Hipparchus' other writings include a treatise in which he used mathematical data to contradict Eratosthenes' great *Geographica*, especially the geographical and mathematical details. It is surprising to find in his bibliography a treatise on astrology. He also wrote on the calendar, on optics, on permutations and combinations, and, perhaps, on gravity (*On Objects Carried Down by Their Weight*).

ROGER T. MACFARLANE

See also **Astronomy; Geography; Mathematics**

Biography

Born at Nicaea in the mid-2nd century BC, Hipparchus seems to have spent much of his life in Rhodes. His recorded observations date from between 147 and 127 BC. He was the first observational astronomer to use mathematics. His only surviving work is the *Commentary on the* Phaenomena *of Aratus and Eudoxus*.

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HIPPOCRATES *c.*460–*c.*370 BC

Physician

Hippocrates of Cos, a Greek physician already renowned by the time of Plato and Aristotle, remains an elusive historical figure despite his fame as the founder of scientific medicine. The earliest characterizations of Hippocrates – for example, in Plato's *Phaedrus* – do not seem to be fully compatible with any of the more than 60 extant works already attributed to him in antiquity (and known in modern times as the Hippocratic Corpus). Furthermore, not even the extant Hippocratic treatises believed by modern scholars to have been written as early as the 5th century BC (for example, *Airs Waters Places, Sacred Disease, Prognosis, Prorrhetic II, Epidemics I* and *III, Art, Ancient Medicine, Nature of Humans, Regimen in Acute Diseases*, and *Winds*) can be ascribed with certainty to the historical Hippocrates, Epigraphic and literary evidence renders it likely, however, that Hippocrates was only one of several physicians called "Hippocrates", that he belonged to a famous family of physicians, that he claimed patrilineal descent from Asclepius, that he was born on the island of Cos, and that he later lived in Thessaly.

The doctrinal, methodological, and stylistic heterogeneity displayed within the Hippocratic Corpus suggests that its texts were composed, for the most part, between 430 and 330 BC by a variety of authors, drawing on divergent traditions, and that these texts gradually became collected under the name of Hippocrates, starting in the early Hellenistic period. "Hippocrates" remained a magnet for medical texts in the later Hellenistic and Roman periods: his name became attached to post-Classical works such as *Heart, Nutriment, Law, Precepts*, and *Decorum*. Despite the pluralism of traditions represented in the Hippocratic collection, it displays certain recurrent commitments. Among these is an emphasis on meticulous observation (e.g. *Epidemics, Prognostic, In the Surgery, Diseases II, Sacred Disease*), on rational inference from observed signs, and on non-divine causes.

The Hippocratic secularization of explanation, i.e. explicitly substituting "natural", physical causes for divine agency, is visible, for example, in the explanations of the Scythians' impotence in *Airs Waters Places* and of epilepsy in *Sacred Disease* (which also offers the first explicit systematic criticism of magic). Furthermore, *Nature of Humans* distinguishes between general diseases caused by miasmic air (which affects numerous people in similar ways) and particular diseases caused by individual regimen, while *Regimen in Acute Diseases* recognizes that a similar effect may be brought about by different causes, and *Regimen* introduces the distinction between cause and coincidence. In all these cases the traditional attribution of human disorders to divine intervention is usurped by an explanation in terms of the interaction of matter with matter, in accordance with the properties of the constituents of things. Some Hippocratics display little interest in aetiology, however, and others advance a cautious view of causal generalization. The author of *On Ancient Medicine*, for example, criticizes new theorists who, like philosophers, engage in general speculation and put forward reductive causal "hypotheses" (the hot, cold, dry, and wet) to explain diseases. The proven method of medicine, he claims, is instead to start from past observations of the effects of regimen.

For all their secularizing strategies, the Hippocratics do not deny the existence of the gods or of the divine. The Hippocratic *Oath* begins by invoking Apollo, his son Asclepius, Asclepius' daughters Hygieia and Panaceia, and "all gods as well as goddesses". Traditional gestures of respect for the power of the gods are present in other works too (*Regimen I* and *IV, Prognostic, Nature of Women*). Furthermore, treatises such as *Diseases of Women* accommodate not only the new Hippocratic "scientific" medicine, but also elements of traditional folk medicine, for example, in pharmacological tests for fertility or pregnancy or for the gender of the foetus.

Contest and warfare are central metaphors of Hippocratic medicine, as of modern biology. Within the body an incessant *agon* (struggle) between rival elements, juices (including humours), and parts determines health and disease. The desired outcome is sometimes depicted as a stalemate or balance between the opposing forces, but more often it is a victory of one over the other(s). Internal contestants also enter into an *agon* with external factors: *Airs Waters Places, Epidemics, Aphorisms, Humours*, and *Diseases of Women* present the environment (seasons, winds, sites, water) as a central determinant of health and disease.

The influential theory of bodily "humours" or liquids, whose excess or deficiency can cause disease, appears in several rival versions in the Corpus. A two-humour model – bile and phlegm – is invoked in *Diseases I* and *Affections*, whereas different four-humour theories appear elsewhere: phlegm, bile, blood, and water (*Generation/Nature of Child*, *Diseases IV*); phlegm, bile, black bile, and water (*Affections* 36, *Remedies*); and, the most famous version, phlegm, yellow bile, black bile, blood (*Nature of Humans*). Many Hippocratic works do not, however, make systematic use of any humoral theory. *Regimen* regards fire (hot and dry, providing motion to the body) and water (cold and wet, providing nourishment) as the constituents of living beings, while *Winds* (*Breaths*) argues that air inside the body is the principal cause of illness. A pluralism of traditions is also visible in Hippocratic theories of reproduction and embryology, in gynaecology, and in therapeutics.

The *Oath* displays unique features but it is not entirely incompatible with deontological emphases in other Hippocratic texts. Responsibility to one's *techne* (i.e. to one's result-oriented professional expertise and to a practice consistent with that expertise) and to its reputation is often depicted as the physician's prime motivation. The concern with reputation, perhaps along with the relative insecurity of Greek physicians within the social and economic order, might be a reason both for the defensive posture of some works (*Art*, *Law*) and for the significant role ascribed to accurate prognosis in others (*Prognostic*, *Prorrhetic I–II, Coan Prenotions, Airs Waters Places, Internal Affections, Diseases I–II, Regimen in Acute Diseases – Appendix, Crises, Joints, Fractures, Instruments of Reductions*). The frequent prognosis of incurability and death, the polemics against charlatans, magicians, and incompetent practitioners, the overt awareness of iatrogenesis, and the emphasis on the avoidance of ostentation and theatricality likewise seem to be motivated by a concern with reputation.

Already in antiquity the impact of the works ascribed to Hippocrates was enormous. As early as the 3rd century BC members of rival medical schools began to write Hippocratic lexica and extensive commentaries on Hippocratic texts, and a commentary of the 1st century BC by Apollonius of Citium on the Hippocratic treatise *On Joints* is extant. This exegetical tradition remained active for centuries. The most influential Hippocratic reader of all time was probably Galen, who used early 2nd-century AD editions of "Hippocrates" by Dioscurides the Younger and Artemidorus Capiton. Early Byzantine medical encyclopaedists (Oribasius, Aëtius of Amida, Paul of Aegina) as well as numerous Church Fathers and philosophers, including the Aristotelian commentators, also gave Hippocrates ample recognition, but Galen's commentaries decisively shaped later Alexandrian and Byzantine commentaries on Hippocrates (e.g. by Palladios, Stephanos of Athens, John of Alexandria) as well as the method of teaching "Hippocrates". The medieval translations of Galen's Hippocratic commentaries into Latin, Syriac, and Arabic ensured that Galen presented posterity, both in the east and in the west, with a version of "Hippocrates" that became a culturally obligatory point of departure for subsequent European medicine until the early modern era.

HEINRICH VON STADEN

See also **Anatomy and Physiology; Health; Medicine**

Hippocrates' *Oath*, translated by the author

1. i. I swear
   ii. 3.1631by Apollo the Physician and
   by Asclepius and
   by health and Panaceia and
   by all the gods as well as goddesses,
   making them judges [witnesses],
   iii. to bring the following oath and written covenant to fulfilment,
   iv. in accordance with my power and judgement:
2. i. to regard him who has taught me this *techne* as equal to my parents, and
   ii. to share, in partnership, my livelihood with him and to give him a share when he is in need of necessities,

and
iii. to judge the offspring [coming] from him equal
[my] male siblings, and
iv. to teach them this *techne*,
should they desire to learn [it],
without fee and written covenant, and
v. to give a share
both of rules
and of lectures,
and of all the rest of learning,
to my sons and
to the [sons] of him who has taught me and
to the pupils who have
both made a written contract and
sworn by a medical convention but by
no other.

3. i. And I will use regimens
for the benefit of the ill
in accordance with my ability and my judgement,
ii. but from [what is] to their harm or injustice
I will keep [them].

4. i. And I will not give a drug that is deadly to anyone
if asked [for it],
ii. nor will I suggest the way to such a counsel.
iii. And likewise I will not give a woman a destructive
pessary.

5. i. And in a pure and holy way
ii. I will guard
iii. my life and my *techne*.

6. i. I will not cut,
and certainly not those suffering from stone,
ii. but I will cede [this]
to men [who are] practitioners of this activity.

7. i. Into as many houses as I may enter,
I will go for the benefit of the ill,
ii. while being far from all voluntary and destructive
injustice,
especially from sexual acts
both upon women's bodies
and upon men's,
both of the free
and of the slaves.

8. i. And about whatever I may see or hear
in treatment,
or even without treatment,
in the life of human beings
– things that should not ever be blurted out outside –
ii. I will remain silent,
holding such things to be unutterable [sacred, not to
be divulged].

9. i.a. If I render this oath fulfilled,
and if I do not blur and confound it [making it
to no effect],
b. may it be [granted] to me to enjoy the benefits
both of life and of *techne*,
c. being held in good repute
among all human beings
for time eternal,
ii.a. If, however, I transgress
and perjure myself,
b. the opposite of these.

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Biography

Born *c.*460 BC in Cos, Hippocrates was the most renowned physician of antiquity, yet detailed knowledge of his life remains elusive. More than 60 extant works were attributed to him in antiquity and are now known as the Hippocratic Corpus. Most probably he was one of several physicians with the name Hippocrates, and he belonged to a family of physicians. Most of the "Hippocratic" texts seem to have been written between 430 and 330 BC.

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HISTORIOGRAPHY

Antiquity

Historie (inquiry) is the Ionic form of what in other Greek dialects is *historia*. The term is, however, first used by the Ionian writer Herodotus, who talks about "the presentation of his research", undertaken "to preserve the actions of individuals from fading with time and so that the great and wondrous works of peoples, both Greeks and foreigners, should not lack renown" (1. 1). It quickly becomes apparent that any examination of this undertaking inevitably involves consideration of the various techniques and procedures – and raises several questions. For example, when did people first wish to preserve a record of their achievements, and what sort of achievements, particularly? How did they remember their past? How did they reckon the passage of time? Why does all this, for the Greeks at any rate, seem to have begun in "Ionia"?

Although there is no general agreement over the details, certain broad points can be made. As the term *historiography* implies, literacy is a prerequisite for the production of real history – illiterate peoples may have memorized lists of rulers, memorials of great deeds, and even elaborate sagas, but these productions lack the analytical and comparative approach to evidence that is possible only with writing (although oral tradition always remained an important source in Greek historiography). In the Near East and Egypt there was a long tradition, going back to the 3rd millennium BC, of recording the names of rulers and their deeds; and in the Jewish/Hebrew religious tradition there were certain works that can, by the strictest definition, be called historical. Accordingly, just as "Ionia" absorbed and developed crucial elements of eastern mathematics and astronomy, it is equally possible that the fundamentals of chronography and local and regional history and the recording of the great deeds of individuals came to the Greeks from the same source. It was in "Ionia" that the earliest prose accounts appeared of the shape of the world, the customs of various peoples, and examinations of myth and genealogy, and it was here too that local histories first began to be written: little of this work survives beyond testimonia, but Hecataeus of Miletus (*fl. c.*500 BC), writing on geography and genealogy, was important and influential (369 fragments of his work survive in F. Jacoby's *Die Fragmente der griechischen Historiker* (1923–), where he is the first historian listed). This Ionian tradition persisted to at least the end of the 5th century BC, as can be seen from the career of Hellanicus of Lesbos (*c.*480–after 400 BC; 201 fragments survive), among whose numerous works were the *Priestesses of Hera at Argos* (cited apparently by Thucydides at 2. 2) and the first *Atthis*, or local history of Attica.

The Homeric poems, too, exercised an important influence on Greek historiography, though they are not themselves history. They are concerned with the past, however, and Homer frequently refers to the differences between the past and the present and to the human desire to he remembered: great deeds are commemorated in various ways and human glory is closely connected with prowess in war; genealogies occur frequently, as does the idea of the community as the vital centre for human existence (cf. *Iliad*, 5. 304–05, 6. 145–211, 22. 304–05; *Odyssey*, 1. 2–3). The date of "Homer" remains controversial, but if West's recent suggestion that the *Iliad* was composed in its monumental form between 670 and 640 BC (with a preference for 660–650 BC) is cogent, then we are clearly in the literate period; Greek colonization, both in the Black Sea area and in the west, was in full swing; and the main themes of the Homeric poems and the impulses that led to the early Ionian prose chronicles are not only similar but nearly contemporaneous.

Herodotus of Halicarnassus (dates quite uncertain, but probably writing after 440 BC) is, then, heir not only to the various subjects and techniques of the earlier Ionian prose-writers but also to the Homeric subject matter, war, and to Homeric *mimesis*, the recreation of a scene so vividly that the reader seems almost to be part of it. In examining Herodotus' work we have the advantage, rare in Classical historiography, of studying something that is whole and complete: we can see its entire shape as its author planned it, and we do not have to worry about "incomplete revisions" or "strata of composition", nor must we try to identify second, or even third, thoughts on certain topics, as is the case in Thucydidean studies. The great story of the war between Greeks and non-Greeks, which goes back to mythical times and culminates with the victories at Plataea and Mycale and their immediate aftermath in 479 BC, starts with extended ethnographic accounts of the parts of the Persian empire and follows its growth in a historical sequence; the attempts by Darius and Xerxes to expand the empire by incorporating into it all of mainland Greece lead to the climactic war narrative in books 7 to 9. Underlying all of this are the basic notions of action and reaction: someone does something to another, the latter responds, the first does something else, and so on – this is the basic causative impulse in human affairs.

Any reader of Herodotus quickly realizes that he is, above all, a master story-teller; we also know that he recited "sections" of his work before audiences. Over the years and as a result of frequent retelling, these tales came to take on a smooth, effortless form; their sources, whether oral or written, or the result of personal experience or observation, were blurred and "improved on" for narrative effect (the end result of this process can be seen in Hammond's brilliant analysis of Herodotus' narrative techniques in the account of events leading up to Xerxes' invasion in 480 BC (7. 117–79) – the "Chinese box" construction, with recurring verbal markers to indicate stages going into and coming out of a particular topic, and a succession of separate narrative "strings" with key phrases to signal the move from one theme to another). Accordingly, Herodotus' tales, particularly those pertaining to strange and wondrous sights and remarkable events in far-off lands, should not be pressed too far. He is more likely to be careful (and correspondingly more accurate) in books 7 to 9, which deal with near-contemporary history. Finally, we may assume that, when he decided to commit his "lectures" to written form, the whole process was relatively quick and easy.

With the Athenian Thucydides in the later 5th century BC we come to the most interesting, complex, and, above all, authoritative of ancient historians. From Herodotus he may have derived the idea of writing the history of a war, but in Thucydides' case it was a contemporary war. Furthermore, Thucydides talks directly to us about his sources, his methods of handling evidence, and about the speeches that are so striking a feature of his account (1. 21–22). He was not the first

historian to provide speeches, but his are so important to his history as a means of conveying important information and forming impressions in the audience's mind that they would merit the attention lavished on them by scholars and critics even if they had not started a practice almost universal in Greek historiography thereafter. However, there is no agreement about what Thucydides meant in a very difficult sentence about his practice with regard to speeches (1. 22. 1): Wilson's suggestion "as it seemed likely to me – keeping as closely as possible to all the points made in what was actually said – that each party would have appropriately spoken about the various situations, so I have written" is possibly as cogent a translation (for avoiding an apparent but improbable self-contradiction in the Greek) as we are likely to get. This was Thucydides' aim: whether he achieved it (or even stuck to it) is another matter altogether. We shall never know how closely the Funeral Oration in book 2 approximates to the actual words uttered by Pericles in the autumn of 431 BC. As for events, Thucydides claims to have written with "the utmost possible accuracy" (*akribeia*: 1. 22. 2). Finally, he expresses the hope that his history will be "useful": he does not state that it will provide a guide for future conduct or furnish pleasure to the reader. Such ideas about history writing came rather later.

Thucydides has always been regarded as an "objective" historian. Modern literary theory, however, denies the possibility of any such absolute concept: in strict logic this is undeniable and recent studies of Thucydides have tended to emphasize such features as his habit of telling his audience what his characters are thinking and his use of phrases designed to make his audience trust him (this is Thucydides the "artful reporter", in Hunter's memorable phrase). However, "objectivity" is a very slippery term and Thucydides still stands out as a beacon for accuracy among ancient historians.

The Thucydidean narrative breaks off abruptly in the year 411 BC and several later historians seem to have aimed to carry on from the break point – more or less: the Athenian Xenophon wrote, over a considerable period of time, the *Hellenica* in seven books, which extended from 411 to 362 BC; the "Oxyrhynchus historian" (probably the Athenian Cratippus: see Harding), of whose work approximately 20 pages of Greek text survive on papyrus and written in the Thucydidean manner (though with no speeches), was probably a contemporary of the events described and covered the period from 411 to 395 BC; and Theopompus of Chios produced *Hellenica* in 12 books, covering the period from 411 to 394 BC; Theopompus, one of the most important historians of the 4th century BC, also produced a new kind of history, focusing on the career of a single individual: his *Philippicae Historiae* in 58 books represented a "universal history" (involving deeds of Greeks and foreigners alike; see below) on a very broad canvas indeed, with numerous digressions and a highly rhetorical style, but with Philip II of Macedon as the unifying core. This type of history, centred on a single, magnetic personality, was continued in the Alexander-histories of Callisthenes, Aristobulus, Chares, Nearchus, Ptolemy I, and many others, including the much later but extant Arrian of Nicomedia (2nd century AD).

The other major historian of the 4th century BC was Ephorus of Cyme (*c.*405–330 BC), whose work in 30 books, from the return of the Heraclidae to the siege of Perinthus in 340 BC, was probably the earliest "universal history". Though not highly regarded today (perhaps unfairly: for a balanced assessment see Fornara, pp. 42–46), Ephorus was widely known and quoted throughout antiquity and was the main source (for Classical Greek history) of Diodorus of Sicily (1st century BC) of whose "universal history", the *Bibliotheca*, 15 from an original 40 books survive.

Among the major trends in historiographic theory in the generations immediately following Thucydides are the notion that history can teach us moral lessons (cf. Xenophon, *Hellenica*, 5. 3. 7) and a parallel tendency to pass judgement on, or "award points" to, an individual, an entire career, or the behaviour of a political entity (a self-important fatuity that continues to the present day, but which, again, starts with Xenophon; cf. *Helenica*, 7. 5. 8). Ephorus was particularly prone to these practices, especially with regard to the characters of individuals; and these moralizing appraisals, with particular emphasis on praise and blame, became a characteristic feature of later historiography.

Other, older concerns continued to be addressed, however: Timaeus of Tauromenium in Sicily (*c.*350–260 BC) produced a chronology based on Olympic victors, cross-referenced to Athenian archons, Spartan kings and ephors, and priestesses of Hera at Argos: dating by Olympiads soon became standard practice. In addition, Timaeus wrote an extensive history of Sicily in 38 books, incorporating geography and ethnography as well as political history. Furthermore, he is remembered for his critical analysis of the works of his predecessors, which often degenerated into hostile abuse.

The moralizing tendencies of Ephorus and the critical use of earlier historians by Timaeus were developed by Polybius of Megalopolis (*c.*200–*c.*118 BC), of whose 40-book history of Rome's rise to supremacy in the Mediterranean world substantial portions survive. Polybius also believed that history was useful to politicians and that study of the past could enable reasonable predictions about the future to be made (cf. 3. 31–32), an idea that he may have absorbed during his stay in Rome and which finds its most striking expression in the preface to Livy's history *Ab Urbe Condita*. As for sources, Polybius quotes his predecessors, often at considerable length, which is valuable, but frequently also with hostile analysis (cf. his attack on the credibility of Fabius Pictor at 3. 8. 1–9. 5, or his citation of Callisthenes on the Battle of Issus at 12. 17–22). From his examination of Rome's rapid development of overwhelming power Polybius concluded that the city's governance had been the main contributing factor and from this he developed 5th-century ideas of a "mixed" constitution (in this case a combination of monarchy, oligarchy, and democracy, with a precise combination of these three elements) into his main explanatory concept.

Given the eventual predominance of Rome, it is not surprising that several Greek writers at different periods wrote large-scale histories, most notably the scholarly and perceptive Dionysius of Halicarnassus (late 1st century BC), who wrote 30 books (the first 11 survive), from the pre-foundation legends to 264 BC, and Cassius Dio of Nicaea in Bithynia (*c.*AD 164–after 229), a Greek-speaking senator and imperial *amicus*, who wrote a *Roman History* in 80 books, from the beginning to AD 229, of which nearly 24 survive complete, with excerpts and epitomes of the rest. Dio is an interesting combination of Greek and Roman ideas and culture – and historiography: he writes Classical Attic Greek, is much influenced by Thucydides (though he

can be moralizing and rhetorical and, at times, too free in inventing speeches), and provides a perceptive analysis of the implications of the change from republic to principate, along with what is, in reality, a political manifesto suggesting solutions for the problems faced by the empire in the 3rd century AD (cf. Reinhold, pp. 219–21).

Emphasis must also be placed on the sheer volume and diversity of the historiography of the Hellenistic period in particular. Obviously, in a brief survey such as this, only a few of the many hundreds of names known to us can be mentioned. For example, there was a vast outpouring of historical works in the 2nd century AD, on which see the sardonic essay "How to Write History" by the contemporary Lucian of Samosata; see also Baldwin's discussion.

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See also **Archives; Chronicles; Chronology**

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HOMER

Epic poet of the 8th or 7th century BC

"Homer" is the name associated since ancient times with the author of the *Iliad* and the *Odyssey*, the two epic poems that form the earliest surviving Greek literature and which are probably the most important and influential works ever written in Greek. The *Iliad* describes the Trojan War, the ten-year struggle by the Greeks to conquer the city of Troy in Asia Minor and to recapture Helen, the queen of Sparta who was abducted by the Trojan prince Paris. The poem covers only a few days in the last year of the war, when Achilles, the greatest of the Greek heroes, is insulted by Agamemnon, his commander in chief, and refuses to fight. The Greeks are badly defeated in his absence and plead for his help, but he gives it only when his close friend Patroclus is killed by Hector, the bravest of the Trojan princes. At that point Achilles returns to the battle and kills Hector, though he knows that he is fated to the if he does so. Hector's family mourns him greatly, and his aged father Priam, the king of Troy, comes to Achilles in secret to ransom his son's body, which Achilles allows him to do. These events are influenced but not entirely controlled by the gods, who take an active interest in the course of the war but are far from united in their aims and often engage in highly undignified bickering. The theme of the poem is the wrath of Achilles; it begins with the actions that caused that anger and ends when Achilles lays aside his anger to share Priam's grief, and the story is amazingly cohesive and unified for a poem of such length. Nevertheless the poet also manages, by means of well-placed digressions, to give the story of the entire war in the course of the poem.

The *Odyssey* takes place after the end of the Trojan War and chronicles the homeward journey of Odysseus, one of the Greek heroes. It begins towards the end of his wanderings, and we learn of many of his adventures only when he narrates them himself in the course of his homecoming; narration from various characters also provides us with the story of the part of the Trojan War between the end of the *Iliad* and the beginning of the *Odyssey*. The poet focuses not only on Odysseus and his adventures, but also on the courage and endurance of his wife Penelope, who waited 20 years for her husband to return, and the coming of age of their son Telemachus, who grew up without knowing his father. Both Penelope and Telemachus suffer from the crowd of suitors who occupy their house for years insisting that Penelope remarry, and the poet carefully alternates scenes describing their plight with ones detailing Odysseus' adventures. Finally the two halves of the poem come together, as Odysseus returns to his family and kills the suitors.

A number of shorter poems about the gods, known as the Homeric Hymns, are also attributed to Homer. Internal linguistic evidence suggests that some of these poems are almost as early as the *Iliad* and *Odyssey*, while others were clearly composed much later.

Nothing is known for certain about Homer himself, and his very existence is now disputed; the *Iliad* and *Odyssey* may have different authors, if either can be said to have an author at all. The epics are certainly the product of a long oral tradition, probably dating back at least to the 12th century BC. The extent to which this tradition can be taken as any sort of record of actual events in the Mycenaean period is disputed; archaeologists since Heinrich Schliemann have tended to identify Troy with the site of Hissarlik in Turkey, which could have been destroyed by the Greeks around 1250 BC (one ancient date for the Trojan War), but many of the episodes in the poems are certainly fictional and most are probably so. Only a few place names and descriptions of objects can be traced with certainty to the Mycenaean period, and most of the material in the poems is of much later date.

The oral tradition that produced the epics went on evolving until they were written down, which cannot have been earlier than *c.*800 BC and may have occurred a century or more after that. Today the name "Homer" is often conventionally applied

to the last bard in the series (not necessarily the same person for both epics), who presumably shaped the poems into the form in which they were first committed to writing. It is uncertain how much of the final product can be attributed to his individual genius and how much to that of his predecessors. The result of this long evolution is that the language of the *Iliad* and *Odyssey* is a mixture of dialects from different centuries and different areas of Greece; it preserves traces of very archaic features next to relatively recent innovations and is not something that was ever spoken as anyone's natural language. Because of the prestige of the poems, however, the "epic dialect" became a recognized form of literary Greek and was often used, in whole or in part, for later Greek poetry.

Throughout antiquity the Homeric epics were regarded as indisputably the best and most important works of Greek literature, a reputation that they have never really lost. Greek schoolchildren studied them, in preference to all other literature, from the beginning of Greek schooling, and the epics were regularly recited on all kinds of occasions both public and private. Once they had been written down, the poems stopped evolving as oral literature and attained a relatively fixed form; this was necessitated in part by their use as an authority on any matter they mentioned, from territorial claims to religious observances. The poems' depiction of the gods as not free of human vices occasioned some discomfort among later philosophers, but not enough to undermine Homer's authority seriously.

Virtually all of ancient literature is indebted to Homer in one way or another; his influence is particularly notable in poetry, since both the language and the mythological material of much Greek poetry are directly traceable to him, but it can also be seen in historical and philosophical works. Some later Greeks, such as Apollonius Rhodius, wrote epics of their own that were close imitations of the Homeric poems, but most writers tended to feel that Homer could not be equalled and therefore should not be directly imitated. Much of ancient art is also clearly dependent on Homer for inspiration.

Homer was the first Greek author to be the subject of scholarship; legend has it that the 6th-century BC Athenian tyrant Pisistratus first ordered that a proper edition of the Homeric poems be compiled. This legend may be without foundation, but it is certainly true that in the Hellenistic period the great scholars of Alexandria devoted much time and energy to editing and commenting on the text of Homer, and many of their observations are still valuable today. Similarly, the enormous preponderance of Homer papyri (ancient copies of the Homeric poems on papyrus, found primarily in Egypt) over those of any other author shows that ancient scribes spent vast amounts of time copying the *Iliad* and *Odyssey*. Early quotations of Homer by other writers suggest that before the Alexandrian period there were a number of variant texts of Homer. This impression is borne out by the earliest Homeric papyri of the Alexandrian period. During that period, however, the papyri reveal the adoption of a standardized text: from about 150 BC virtually all papyri reflect a text very similar to that of the medieval manuscripts on which our own texts are based. Thus in some way the poems became codified during the Alexandrian period, though it is not clear whether this codification was entirely the work of scholars (many of whose emendations do not appear in the codified text) or whether it was also due to the changing practices of Alexandrian book copyists.

In the Roman and Byzantine periods the Homeric poems continued to be read, copied, quoted, imitated, and prized above other pagan literature, and with the introduction of Christianity their status was only slightly diminished. The popularity and importance of the epics made it impossible for the Christians to condemn them, and for the most part the pillars of the Church read and used Homer quite happily, although for some the poems' incompatibility with Christian doctrine remained a problem. Several Byzantine authors, such as Tzetzes (12th century) and Psellos (11th century), solved this problem by writing allegorical interpretations of the poems and giving them Christian meaning; in so doing they joined a long tradition of Homeric allegorization that dates back to the Hellenistic period. School curricula in Byzantine times still contained a large component of instruction in and memorization of Homer, and ability to quote from the poems from memory was considered essential in an educated man. Byzantine scholars also produced numerous works on Homer, including the 12th-century archbishop Eustathios' massive commentaries on both epics, which are still of use today. Homer also influenced many vernacular authors of the Byzantine period.

In less educated circles, however, the enormous difference between the epic dialect and the spoken Greek of later periods made the poems more and more difficult to understand, and over time their plots became less familiar to the populace as a whole. Meanwhile, of course, the Homeric poems had been imitated by Latin poets, who in turn inspired medieval poets in western Europe. One result of this was the *Roman de Troie*, a 12th-century French poem on the Trojan War that adapts the Homeric characters into a framework of medieval Christianity, chivalry, and courtly love to the extent that they and their stories are barely recognizable. This poem was brought to Greece by Frankish occupiers and in the 14th century was translated into vernacular Greek as the "War of Troy". It is now the longest surviving medieval Greek vernacular poem (14,367 lines).

With the fall of Constantinople in 1453 the Greeks' contact with their literary past was greatly diminished, but the Homeric poems continued to be used as school texts in those schools that offered training in Greek (particularly those in the Greek diaspora) and so were as influential as any work of ancient Greek literature during this period. The prestige that they continued to hold is illustrated by the story of the reception of a French general sent by Napoleon to annex Corfu in 1797; after the general had delivered a learned speech sprinkled with references to Classical literature, the Corfiots handed him a copy of the *Odyssey* and replied that although the Greeks were not learned they should still be respected because of Homer. At the liberation of Greece in the 19th century Greek education became more widespread, and with it the Homeric poems, which were still used as school texts. They are in fact still so used to this day, continuing an impressive and unbroken tradition of two and a half millennia of Greek education.

The gap between Homeric Greek and the living language has continued to widen, however, resulting in a need for translations. As early as the 17th century Nikolaos Loukanis produced a paraphrase of the *Iliad* in modern Greek, but the first true modern Greek translations were not completed until Polylas's work in the late 19th century.

ELEANOR DICKEY

See also **Historiography; Oral Tradition; Poetry (Epic)**

Biography

Homer is traditionally assumed to be the author of the two epic poems which represent the earliest surviving examples of Greek literature, the *Iliad* and the *Odyssey*. Based on a long oral tradition, the poems were not written down before 800 BC (and possibly a century or more later); the name "Homer" is conventionally applied to the last bard in that tradition before the poems were committed to writing. All subsequent Greek literature is indebted to Homer in some way.

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HOMOSEXUALITY

Homosexuality and the Hellenic tradition are bedfellows of long standing. The gay man or lesbian is no longer the "woman trapped in a man's body" or "the man trapped in a woman's body"; but we are no nearer agreement on what "homosexuality" is than we are able to accept the diversity it represents. Social constructionists argue that no sexualities exist outside culture – that indeed the very concept of "sexuality" is a product of our modern scientific-rational culture; the essentialists proclaim that there is something that "essentially" makes people homosexual, it is a "natural fact". With these two views unreconciled, it is clear there is no one "homosexuality". First, male and female homosexuality must be recognized as different experiences and expressions. Secondly, "homosexuality" is a category of meaning that shifts through time, and it is simplistic to reduce all male homosexual activity to anal intercourse. Homosexuality embraces the homosocial as well as the homoerotic. David Greenberg's masterful survey of the field has pointed out the variety so glibly united in the term "homosexuality". Greenberg's categories are useful in analysing the three broad periods of homosexuality in the Hellenic tradition: the Classical, the medieval, and the modern.

Classical

Sappho provides some evidence of female homoeroticism if not homosexuality:

> and you were anointed with
> a perfume, scented with blossom
> . . . although it was fit for a queen
> and on a bed, soft and tender
> you satisfied your desire. . .
>
> no. 32 (LP 94) in Sappho, *Poems and Fragments*, translated by Josephine Balmer

Clearer evidence from the Classical period is largely restricted to male homosexuality. For Greenberg the homosexuality of Classical Athens – subject of a definitive study by Kenneth Dover – was transgenerational (in that the lover was older, the beloved little more than a boy without the first growth of a beard); it was based on a differential of power (the lover was older, richer, more experienced, and took the active role; the beloved was younger, without resources, gaining an education, and took the passive role); it was transitional (both parties filled the roles of beloved and lover at different stages); and it was not exclusive (it was indeed "just a stage they were going through", and the lover would frequently have a wife and children at home and in due course the beloved would become an adult citizen and take a wife). This homosexuality – more accurately pederasty – played an institutionalized role in Greek society in the 5th and 4th centuries BC. Not all aspects of this part of Greek culture are clear, but neither are all aspects occluded under the rubric of the "love that dare not speak its name". This love had its names; what is not always clear is what these names meant. The beloved was the *pais* or *eromenos*; the lover was the *erastes*. This part of human experience was socialized and circumscribed into an ideal of accepted behaviours, with some actions clearly prohibited. The beloved, the *eromenos*, was a boy of between 9 and 16, the son of a citizen, who in time would become a citizen himself. One of the leisured classes, he spent his time frequenting the gymnasia where, if he conformed to the Greek ideals of young male beauty, he would come to the attention of a prospective *erastes*, himself a member of the citizenry. The ideal was presented as a hunt: the *eromenos* was the quarry, the *erastes* the hunter. By his attentions, his presence, his example, his guidance, and more concrete gifts of cockerel, hare, or hound, the *erastes* by this theory would inculcate the "best" things of civilized life in his beloved. For his part, the beloved

was expected not to give in readily to the importuning of the *erastes*. The willingness of the *erastes* to continue in the pursuit of the apparently unwilling *eromenos* was a clear indicator of the *erastes*' excellence. At a suitable end-point, however, it was accepted that it was "creditable to grant any favour in any circumstances for the sake of becoming a better person", glossed by Dover (p. 91) as "acceptance of the teacher's thrusting penis between his thighs or in his anus is the fee which the pupil pays for good teaching or alternatively a gift from a younger person to an older person whom he has come to love and admire". Here again the Classical Greeks have a word for it: the physical expression was *diamerizein* ("intercrural intercourse"). But there were social constraints. It was assumed that the *eromenos* would gain no physical pleasure (the examples of 100 years of vase painting from 570 to 470 BC show the *eromenos* with flaccid penis and often an almost abstracted air, while the aroused *erastes* is "up for it"). And the *eromenos* was protected from the unwanted advances of an *erastes* by the laws of hubris: in myth Zeus carried off a protesting Ganymede (followed in turn by Poseidon taking Pelops) but boy citizens were protected from such outrage by the legal threat of the death penalty. However, though 4th-century BC Athens readily accepted this "homosexual" ethos of *eromenos* and *erastes* (with evidence provided by the Attic comedies of Aristophanes, by Plato, and by Aeschines' speech of 346 BC in prosecution of Timarchus), the freedoms were constrained. The *eromenos* who, voluntarily or due to parental pressure, gave his favours for material gain in overt prostitution lost his place among the citizens and could be arraigned for hubris if he subsequently attempted to act as a citizen by speaking in the assembly or holding reserved office. Similarly, the man or boy who took the passive (receptive) role in anal intercourse (who allowed himself to be penetrated) separated himself from the citizens and was ordered with women, foreigners, and prostitutes. The role of the beautiful yet aloof object of a worthy male citizen's desire was allowed the beardless youth; a coeval relationship between men – more especially if anal intercourse was imputed to it – was not. The manner in which the physical expression of a homosexual relationship forms a subverting continuum with homosocial relationships – such as between Achilles and Patroclus – caused problems for Classical Hellenism. Pausanias and Agathon continued in the relationship "too long" according to the norms, but their respective roles were clear; for Achilles and Patroclus the question was "which one is the *eromenos*, which one the *erastes*?" as the relationship had to conform to that paradigm.

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See also **Prostitution**

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HONOUR AND SHAME

A classic description of the values cherished by the ancient Greeks is offered by the speech delivered by the Athenian statesman Pericles in commemoration of those killed during the first year of the Great or Peloponnesian War between Athens and Sparta (430 BC). In this oration, so often compared to Lincoln's Gettysburg Address because of its affirmation of basic principles, Pericles stresses that the dead have won eternal praise before capping his eulogy with a final, and culminating, claim that love of honour alone never grows old and, when one is in the grip of old age and worn out, it is not the pursuit of money, as is asserted, but being honoured that confers the greater pleasure (Thucydides, 2. 44. 4). This sentiment, the supremacy of *time* or honour, is echoed time and time again, both explicitly and implicitly, throughout antiquity: thus Greek literature begins with Homer's *Iliad*, and the *Iliad* begins with the quarrel between Agamemnon and Achilles as a result of which Achilles withdraws from battle and his compatriots are slaughtered. Why does Achilles retreat to his tent? It is because the woman Briseis has been taken from him and so no honour is paid to "the best of Achaeans" (*Iliad*, 1. 412). The law of reciprocity applies: when insulted or injured the man of honour must retaliate in at least equal measure if his personal prestige is to be upheld, and the man of honour is at his most sensitive when a woman from within the family group is in any way threatened. Athenian law, for example, regarded homicide as justified if a man engaged in illicit sex and was caught in the act with a wife or even with other female dependants, (i.e. mother, sister, or daughter), of the killer.

An excessively protective attitude towards female relatives is only one consequence of an obsession with personal and family honour. Honour depends upon the acknowledgement of others and appearance tends to be more important than the truth. "Reputation" is a kind of divinity, according to the poet Hesiod (*Works and Days*, 763–64) who also illustrates reciprocated action: if the first to be wronged in word or deed, you must

never turn the other cheek but hit back as hard as you can (709–11); in other words, two wrongs definitely add up to a "right" if the rules of the honour code are observed. Honour, moreover, is reckoned to be a "commodity" and measurable; it is in short supply; and if someone else has honour, it is at your expense and you resent it and try to cut that person down to size by the application of different ranking criteria: if he is powerful or wealthy, then you attack his family background or accuse him of being morally suspect.

It is significant that the word *philotimia*, literally "love of honour", often means "jealousy". As Aristotle remarks, "those who love honour are more envious than those who do not love honour" (*Rhetoric*, 1387b). Recognition, and therefore success, however achieved, is crucial; "if I had succeeded", says the nurse in Euripides' *Hippolytus*, "I would be counted among the wise, since we possess a reputation for intelligence according to success" (700–01). Poverty is a mark of failure, and the poor man has no honour or, as Euripides put it in his *Electra*, "poverty is a disease and it teaches a man to be evil because of his need" (375–76). But a Greek would prefer to scratch a bare living from the soil rather than work for another, for it was the slave who was at another's beck and call and a slave, again, can lay no claim to honour. Greek society was intensely competitive at every level, whether those engaged in competition were athletes, dramatists, statesmen, or soldiers. And it was the relentless pursuit of honour, often at others' expense, that made society so agonistic and, therefore, unstable.

You undertake action to gain honour; you refrain from action to avoid shame or *aidos*. The Christian virtue of guilt was replaced in antiquity by the concept of shame. Hector refuses to run from Achilles though he knows he cannot prevail: "I feel shame before the Trojans, men and women, in case someone my inferior says 'trusting in his strength Hector has destroyed his people'; it would be far better for me to face up to Achilles" (*Iliad*, 22. 105–09). When the Greeks waver on the field of battle the hero Ajax tells them to be men and place shame in their hearts and to feel shame towards each other. Being typically Greek, Ajax also emphasizes the practical advantage of not fleeing – "when men feel shame more survive than are killed and no glory or safety is to be found in flight" (15. 561–64).

But shame acts as a deterrent far away from battle. The goddess Thetis is ashamed to join the deities because of her misery (*Iliad*, 24. 90–91). Women especially must exhibit shame, keeping well out of the way of men: the great glory of a woman, Pericles claims in the Funeral Speech, is to be least talked about by men whether they are praising or criticizing her (Thucydides, 2. 45. 2). What is required of women is similarly applicable to the young: when the young Telemachus came to Pylos in the *Odyssey* in search of news of his father, he is urged to approach the very much older Nestor without hesitation – "You've no need of shame, none at all" – but replies, "How am I to approach him, how shall I address him? That a young man should question an older man is a matter of shame" (*Odyssey*, 3. 14 and 22. 24). Penelope's suitors are said to have no share of shame, since they behave outrageously in another's house (*Odyssey*, 20. 170–71). In the *Iliad* Apollo comments that Achilles, in maltreating the body of the dead Hector, has destroyed pity and has no shame (24. 44–45). He further adds that shame greatly hinders and helps men (45), and this ambiguous quality associated with *aidos* is also acknowledged by Hesiod (*Works and Days*, 318). Shame is no use if you are destitute, merely inhibiting action; then you need to be bold, to exhibit what is termed *tharsos*. When Telemachus and Nestor actually get down to conversation in the *Odyssey*, the former speaks "having been made bold, for Athene herself placed boldness in his heart" (3. 76–77).

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HOSPITALITY

The relationship between host and guest, *xenia* ("guest-friendship"), is one of the most hallowed in Greek culture. *Xenia* may exist between two individuals (usually two males), two groups (such as two towns), or an individual (especially a ruler) and a group. For example, Herodotus describes the relationship of Croesus (king of Lydia in the 6th century BC) with the Ionians (1. 27. 50) and Spartans (1. 69. 3) with the term *xenia*. Guest-friendship also existed on an interfamilial and intergenerational level. For example, if a person's father had formed a guest-friendship with another man, the son could expect hospitality from the same household, even if neither the father nor the original host was still alive. In Homer's *Iliad* (6. 215–31) the Trojan Glaucus and the Greek Diomedes break off their duel when they learn that their fathers were guest-friends. The two warriors even exchange gifts, just as their fathers once had. The Homeric ideal carried over into society as is evidenced in the 4th century BC by Demosthenes' speech *Against Polycles* (50.56), which notes how Pasion's son was able to borrow money because of his father's numerous guest-friends. The example of Pasion's son also shows how guest-friendship might also provide a person with relief in times of financial difficulty. Even people who were fugitives from the law or exiled from their native town could expect hospitable treatment (see Demosthenes, 23. 85 (*Against Aristocrates*); Diodorus, 14. 32. 1).

After contact with a stranger was initiated, the guest-friendship was ritualized through the clasping of hands, the partaking of food, and the giving of gifts, especially those given by the host to the guest. The guest could not "insult his host", "demand or take what is not offered", or "refuse what is offered" (Pitt-Rivers, pp. 27–28). On the other hand, the Greek host could not "insult his guest", fail "to protect his guest" or his guest's honour, or fail to be as hospitable as possible (Pitt-Rivers, p. 28). Greek hosts had the added responsibility of providing for the stranger who might arrive unannounced and at an inopportune time. Even if a Greek was approached by a stranger at an inconvenient moment, turning him away was considered disgraceful. The extremes to which a Greek would go to uphold

the custom of guest-friendship are displayed in Euripides' *Alcestis* (438 BC), where Heracles arrives unexpectedly at Admetus' home just as Admetus is preparing to bury his wife Alcestis. Despite Heracles' inconvenient arrival, the over-hospitable Admetus refuses to turn him away and even pretends that he is conducting a funeral not for his wife, but for a maidservant.

Besides having to provide for a complete stranger at an inopportune time, Greek hosts seem to have felt compelled to provide the most lavish hospitality possible, even if it was beyond their financial means. In Homer's *Odyssey* the guests of nobles such as Nestor, Menelaus, and Alcinous not only receive the basic amenities (food, drink, and lodging), but are also bathed, given clothing, offered or given transport to their next destination, and given valuable gifts to take with them. Such hospitality recalls the Acragantine Tellias, who lived in the late 5th century BC. Tellias was so wealthy that he had servants stationed at his gates who would invite all strangers who passed by to be his guests. Tellias was even said to have entertained and clothed 500 cavalry from Gela (Diodorus 13. 83. 2). Likewise, Plutarch (*Demetrius*, 12. 1–2) reports that in the late 4th century BC an Athenian proposed that whenever Demetrius I of Macedonia visited Athens he should be provided with the same hospitable honours (*xenismoi*) granted to the divinities Demeter and Dionysus, and that the citizen who was most lavish in his hospitality towards Demetrius should be granted an offering of dedication at public expense. Ibis is in contrast, though, with *Odyssey* 14, where the disguised Odysseus tests the hospitality of his swineherd Eumaeus. Despite Eumaeus' humble estate, the hospitable swineherd provides his guest with food, lodging, and even the cloak off his own back. Odysseus' stay with the swineherd also illustrates the ideal minimum that a stranger might expect from a Greek host.

Hospitality was taken so seriously by the Greeks because the gods themselves were thought to protect strangers. The supreme god Zeus is most often associated with guest-friendship. Homer's Odysseus warns the Cyclops Polyphemus against injuring guests because Zeus would protect strangers (*Odyssey*, 9. 270–71). In another myth Tantalus, who attempted to feed the gods with the flesh of his son Pelops, was killed for this violation of *xenia* and was condemned by Zeus to hunger and thirst perpetually in the underworld. Zeus' punishment of Tantalus is all the more poignant when we consider that some sources make him Zeus' own son. Apollodorus (3. 8. 1) preserves a similar myth about the Arcadian Lycaon. Zeus, having heard that Lycaon and his sons surpassed everyone in their pride, tested them by appearing at their home in the guise of a peasant worker. When they attempted to feed him with human flesh, he destroyed Lycaon and all of his sons (except one saved through Gaia's intervention). Even after the advent of Christianity one still finds references to Zeus as the patron of strangers in Libanius (4th century; *Declamation*, 4. 2. 9), Nonnus (5th century; *Dionysiaca*, 20. 176), and Constantine VII Porphyrogennetos (10th century; *On Virtues and Vices*, 1. 261. 29), to name a few.

As evidenced by the above-cited examples from the *Odyssey*, the importance of proper relations between host and guest is emphasized from the earliest extant Greek literature. Both of the Homeric epics have guest-friendship at their core, and established for the Greeks the ideals of *xenia*. The Trojan War, the backdrop for the *Iliad*, arises out of a violation of guest-friendship as the Trojan Paris abducts Helen, the wife of the Greek Menelaus. Legend has it that Menelaus had entertained Paris in his home for several days before the abduction. Thus, at the heart of Paris' crime is his violation of the custom of guest-friendship (compare Aeschylus, *Agamemnon*, 399–402, 699–708; Euripides, *Trojan Women*, 865–66; Quintus Smyrnaeus, *Posthomerica*, 13. 412–14).

The *Odyssey* "may be viewed as a study in the laws of hospitality" (Pitt-Rivers, p. 13). Odysseus' son Telemachus, as he searches for his long-lost father, enjoys the hospitality of his father's war comrades Nestor and Menelaus. In contrast to his son, Odysseus, returning from the Trojan War, must overcome ogres like the inhospitable Cyclops Polyphemus, who eats several of his men. Eventually Odysseus, having lost all his ships and crew, is transported to his native land thanks to the hospitality of the Phaeacians. When he finally returns home, disguised as a beggar, he is mistreated by the suitors who hope to wed his wife Penelope and have been consuming his estate during his absence. Ultimately Odysseus sheds his beggar disguise and destroys the suitors who, like Polyphemus earlier in the poem, have clearly violated the custom of *xenia*.

Of course, the example of hospitality established in Greek myth and fiction represents an ideal. Still, sources from Greek society show reverence for the bond between host and guest, as well as a tremendous effort to accommodate strangers. In the 5th century BC the guest-friendship between the Spartan Archidamus and the Athenian Pericles led Pericles to believe that when the Spartans invaded Athenian territory Archidamus would avoid Pericles' estate (Thucydides, 2. 13. 1; Plutarch, *Pericles*, 8. 4, 33. 2). In the following century Xenophon (*Anabasis*, 3. 2. 4) complains about the treachery of the Persian satrap Tissaphernes who has violated *xenia* and complains particularly about his lack of reverence for Zeus Xenios, "Zeus, the god of hospitality". Xenophon's *Anabasis* contains several references to various towns supplying the Greek army with oxen, sheep, barley-meal, and wine. The people of Sinope, for example, sent the army 1500 jars of wine (*Anabasis*, 6. 1. 15). From the *Anabasis* it becomes clear that the Greek army could not have accomplished their lengthy march without the hospitality of the various towns who provided them with food, drink, and other necessities. In the same century Aeschines' condemnation of Ctesiphon's arrest, torture, and execution of Anaxinus of Oreus is made all the more shocking to his Athenian audience when it is reported that Ctesiphon had formerly dined with Anaxinus in the latter's home. Accordingly, Aeschines claims that Ctesiphon murdered his host, and even claims that Ctesiphon did not deny this charge (*Against Ctesiphon*, 3. 224).

With the advent and spread of Christianity through the Hellenic world, the ideals of *xenia* established by the Homeric epics merged with the new belief system, since the early Christian writings also embraced the ancient ideal of *xenia*. In the Gospel of Matthew (25: 34–46) Jesus praised those who would (among other things) welcome a "stranger" (*xenos*), saying that "whatever you did for one of these least brothers of mine, you did for me". Jesus goes on to say, though, that those who did not (among other things) give a "stranger" welcome would "go off to eternal punishment". Elsewhere in the New Testament the author of Hebrews urges the audience not to neglect hospitality (*philoxenia*), since "through it some have unwittingly

entertained angels'' (13: 2), an idea reminiscent of the ancient Greek stories such as that of Zeus and Lycaon mentioned above.

The Christian concern for strangers manifests itself in attempts to provide accommodation for them and the poor. In the 4th century AD Basil of Caesarea saw the value in building places for strangers to lodge (*Epistulae*, 94. 1. 36). Procopius (*Buildings*, 1. 2. 14, 17) notes that in the 6th century the emperor Justinian erected in certain cities such buildings, called *xenones* (''rooms for guests'' or ''rooms for strangers''), for the poor and strangers. Procopius says that the *xenones* at Byzantium were intended as temporary quarters for strangers to the imperial city who found themselves in need of accommodation (1. 11. 27). Justinian took care that similar provisions were afforded to strangers in Antioch, Ciberis, Mocesus, Jerusalem, and Jericho.

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HUNTING

Up to the end of the classical period hunting was pursued mainly to supplement a largely vegetarian diet and to protect flocks and homesteads against predators, chiefly wolves and jackals. Myths abound of heroes such as Heracles, Meleager, and Theseus slaying beasts that ravaged their neighbourhoods. Hunting imagery is common in Homer, who describes Odysseus killing for the pot (*Odyssey*, 9. 154[-58; 10. 156–71). Homer's huntsmen go on foot with bow or spear, accompanied when not abroad by hounds. The quarry was chiefly deer, wild goats, and boars. The last of these must have been plentiful since the tusks of some 30 to 40 boars were required to provide the plates that gave strength to a single example of one type of Mycenaean helmet. The hunting of lions, mentioned by Homer only in similes, is uncertain, although fragments of bones have been found at Tiryns in contexts of *c.*1230 BC and lion hunts are depicted on a few pieces of Mycenaean art, such as late 16th-century BC bronze dagger inlaid with figures of an archer and spearmen with huge shields fighting a pride. Mycenaean bows were ''self'' bows (from a single stave of wood), although the composite bow, which was probably introduced in the Dark Age, was clearly known to Homer; spears were generally, if not exclusively, for thrusting rather than throwing. There is pictorial evidence for the use of nets in catching boars (although they are not mentioned in Homer's famous description at *Odyssey*, 19. 428–58), stags, and wild cattle (probably the auroch and possibly the wisent) and also for hunting from chariots (despite the unsuitability of the terrain). One fragmentary mid 13th-century fresco from Tiryns uniquely depicts huntresses amid the men.

In the Archaic age Spartans hunted game to supplement the meager diet of their common messes, while in Attica aristocratic men, as is shown principally in vase-paintings, presented younger males with live and dead game as lovers' gifts and, probably, also as tokens of their own manliness.

The principle source of information for hunting in the Classical period is Xenophon's *Cynegeticus* (''The Hunting Man''), which deals principally with nets, dogs and their training, and the hunting of hares, although deer, boar, and other large mammals are mentioned. He warns against allowing hounds to chase foxes, since this ruins them for hunting hares. Although for Xenophon its primary purpose is still for the pot, he does recommend hunting as excellent training for not only warfare, since it fosters hardiness, discipline, and initiative, but even civic responsibilities, in both of which he is supported by Plato (*Laws*, 822d–824c). Presumably for these reasons there was a law at Athens which permitted hunting through standing crops. There is evidence, however, that the development of democratic ideas, of which both Xenophon and Plato highly disapproved, had engendered an adversely critical reaction against hunting as an unnecessary aristocratic extravagance, and that the growth of population had in Attica reduced the extent of accessible terrain for the activity.

The favourite breed of hound for hunting hares (and even boars because of its superior tracking abilities) was the Laconian, of which there were in Xenophon's day two breeds neither of which is recognizable today. The larger was perhaps 45 cm high at the shoulder with a weight of 13 to 18 kg. All hounds wore leather belts, collars, and for ease of slipping, separate leashes. The hunters, sometimes wielding curved throwing-sticks, followed most commonly on foot (for Xenophon horses were used only to get to and from the hunt). The hares, when found by the hounds and started, were caught in nets of flax. Purse nets were set in narrow defiles: the mouth was propped open by sticks which fell when the hare hit the net, whereupon the net-watcher (presumably a slave) drew tight the skirting-line. Larger road nets were stretched across paths and log nets, up to 55 m in width, in level open areas both caught hares and diverted them to the purse nets.

Deer (red, roe, and probably fallow) could be caught in nets and, in summer when they tired easily, run down by hounds before being pierced by the hunters' javelins. In spring fawns left concealed by their mothers were tracked and caught to attract hinds. Hunters also used carefully concealed foot snares. These consisted of a wooden clog attached to a noose which lay on a plaited ring of yew with inward-facing iron and wooden nails placed over a hole. The clog both hampered the deer's flight and left an easily visible trail.

The animal most prized by hunters was the boar, whose slaying without the use of nets was deemed by the Macedonians the token of manhood (the unreliable Hegesander reportedly claimed that even at the age of 35 the future king Cassander had still to sit in a chair by his father like an adolescent for his failure to accomplish the deed). Whether caught by a foot snare or

driven out of a covert, the boar was a match for hounds and hunters armed with javelins and a thrusting spear especially designed with projecting teeth on the socket to prevent the beast running up the shaft.

Xenophon mentions also (*Cynegeticus*, 11) that in the Pindus range, Thrace, Mysia, and Syria "lions, leopards, lynxes, panthers, bears, and similar wild beasts" were caught by means of poisoned bait and pitfalls to which they were lured by tethered goats.

Fowling was practiced principally by professionals, who were generally despised by the literary elite. Plato considers the art unbecoming to a gentleman (*Laws*, 823e), although Xenopohon is on one occasion kinder (*Cyropaedia*, 1. 6. 39). The trapping of fur-bearing animals such as otters and martens was similarly not deemed an honourable pursuit by the aristocracy, although it was quite common despite a lack of the fashionable modern sartorial relish for furs. The fowlers' main quarry was partridges, pheasants, quails, doves, and various smaller birds. Their favourite aids were purse nets, snares, and the use of glutinous birdlime (often made from mistletoe berries) which was either smeared on the twigs of trees or on rods which could be fitted into each other to attain the desired length. Tamed females of the hunted species were employed for decoys, as were also owls since during daylight these are often mobbed by small birds. Aristotle (*Historia Animalium*, 620a33–b6) and other mention the Thracian technique of depending upon wild hawks to drive back to the ground birds started by the fowlers. A mid-2nd-century AD North African mosaic shows a fowler camouflaged by a goatskin. From close observation knowledge of the nature and habits of the animals and birds frequently hunted was extensive and extended remarkably even to leporine superfoetation (the female hare's ability to become pregnant again before the birth of an earlier set of leverets).

Although during the Classical period hunting parties had been small, Alexander's conquests enabled the Greeks of the Hellenistic period to indulge in vast hunts like the Persians, whose game parks were imitated especially in Seleucid Syria. "Hunt clubs" appeared in Macedon for upper-class males and, for the royalty of the Successor Kingdoms – in imitations of oriental predecessors – hunting tropies enhanced prestige. There is evidence too from the 3rd century BC of hunting as a form of pest-control, when, on the advice of the Delphic oracle, the inhabitants of the island of Astypalaia acquired hounds and caught within a single year over 6000 hares, descendants of two introduced from Anaphe some years before.

For the Roman period the main sources are the *Cynegeticus* of Arrian (*c.*AD 86–160), a section (5. 17–86) on hunting in the slightly later thematically arranged dictionary (*Onomasticon*) of Pollux and, in the early 3rd century, an often fanciful hexametric poem in four books (*Cynegetica*) falsely attributed to Oppian which mentions a huge variety of animals from the elephant and rhinoceros to the hedgehog. Arrian, writing under the pseudonym of Xenophon the Younger, is primarily concerned with updating the work of his predecessor by giving information on a Celtic breed of gazehound, probably a type of greyhound unknown to the Classical Greeks, which transformed the hunting of hares. It was now coursing on horseback rather than hunting on foot, the principal aim being the pleasure of the chase rather than the capture of the animal: indeed Arrian proposes that the hare always be given the opportunity to get clear of its form and claims (16. 5–7) to have often himself saved a hare that had run well, a point on which he specifically criticizes Xenophon, who says only (*Cynegeticus*, 5. 14) that "lovers of the chase leave the very young leverets for the goddess (Artemis)". A further innovation in hunting at this period seems to be the use of a cord with brightly coloured feathers to frighten game towards nets. The *venatio* of the amphitheatre so enjoyed by the Romans was not to Greek taste, but hunting became a military duty both to provide wild animals for the games and to protect local livestock.

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See also **Animals; Fishing**

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HYMNOGRAPHY

The history of Greek hymnography encompasses the devotional and liturgical poetry and paganism and Orthodox Christianity, as well as Byzantine parahymnography. The first examples of hymnography to survive in their entirety are the *Homeric Hymns*, hesameter compositions that were presumably sung by soloists as preludes (*prooimia*) to heroic epic. Pindar and Baccchylides were early composers of two types of choral hymns: paeans, which were sung by soldiers, in private social life and at public festivals; and processionals (*prosodia*), sung a part of the pageantry that could precede a sacrifice. Examples of hymns written to accompany the sacrifices themselves survive in Hellenistic or Roman inscriptions on temple walls. Other complete and fragmentary texts from these later periods, accompanied in exceptional cases by musical notation, have been preserved in manuscripts and papyri. These range from the *Orphic Hymns* (of around the 2nd century AD) – 87 poems from Asia Minor that constitute the only surviving ancient Greek hymnal – to a papyrus fragment of the late-3rd century AD containing the first Christian hymn to have survived with its music.

With the exception of this latter composition in praise of the Holy Trinity and a few other such hymns without musical

notation, it is difficult to discern the boundaries between Christian hymnography, psalmody, scripture, and homiletics prior to the 4th century. Although scholars have found abundant hymnic material in the New Testament and deuterocanonical or apocryphal texts, they have generally been unable to identify its provenance or liturgical use. The highly poetic Ester homily of Bishop Melito of Sardis (2nd century), which some have seen as a precursor to the works of Ephraim the Syrian and Romanos the Melodist, may similarly contain echoes of contemporary hymnody. Two hymns by Clement of Alexandria, on the other hand, are probably non-liturgical compositions.

Following the legalization of Christianity, the pressures of pervasive heresy and large numbers of new converts led the Church to regulate its worship by defining a canon of scripture, assigning the performance of chants to ordained specialists, and suppressing all but the most venerable *idiotikous psalmous* (''private psalms''). As a result, only a few ancient hymns – for example, the *Phos Hilaron* for evening prayer – remained in services that were coalescing around presidential prayers and biblical psalmody, the singing of which had recently been popularized by the ascetics of the Egyptian desert. Unlike the monks, who would recite the Psalter as a contemplative exercise, urban Christians chanted select psalms or canticles with newly composed refrains. Those of one sentence or more were called *troparia*, examples of which include the *Trisagion Hymn* and ''Only Begotten Son'', a summary of the Nicene Creed attributed to Justinian.

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I

IDENTITY

The centrality of language is indubitable. Some signs specific to the Linear B syllabary on a circular pebble excavated in a Middle Helladic context indicate that Greek was being written in the Peloponnese around 1650 BC. We do not, however, know what those who then spoke the language called it. The Homeric epics (of the 8th century BC, but incorporating much earlier traditional phraseology) use "Achaioi" as the main generic name with "Danaoi" and "Argeioi" as alternatives. Hittite tablets of the 2nd millennium BC mention "Achiyava" as an important kingdom while Egyptian inscriptions name the "Danaya". None of the three terms was used as an overall self-description by speakers of Greek after Homer. "Argives" and "Achaeans" became confined to subgroups.

The peoples to their east called Greek-speakers by some variant of "Ionians", because Ionians from Euboea, the Aegean islands, and the Asia Minor coast dominated trade there into the 7th century BC. Greek-speakers themselves, however, saw the Ionians rather as one of their main subdivisions. The fragmentary pseudo-Hesiodic *Catalogue of Women* of the 6th century BC presents a genealogy in which they are somewhat closer to the Achaeans, Ion being brother to Achaeus and son to Xuthus, than to Aeolus and Dorus, Hellen's other two sons.

Peoples to the west and the north of the Greek-speakers took the word "Greek" from the Romans. The reason for this choice is uncertain. The *Catalogue of Women* states that Zeus and the daughter of the first man, Deucalion, gave birth to Graecus, and later sources that Hellen, Deucalion's son, gave his name to the people previously called "Graikoi". Since no major subdivision of Greek-speakers called themselves "Graikoi", it is conceivable that what we find here is the echo of an earlier attempt to construct a common genealogy, current when cities of Euboea and the town of Graia (Oropus) opposite were founding the first Greek settlements in Italy.

Neither "Achaean" nor "Ionian" nor "Greek" became the dominant term of self-descriptive identity in Classical antiquity. In Homer "Hellene" referred only to Achilles' kingdom in south Thessaly or Phthiotis (*Iliad*, 2. 680–85). In the 7th century BC, however, Hesiod (*Works and Days*, 1. 653) speaks of all the mainland Greeks as "Hellenes". By the 6th century BC a common shrine of nine cities at Naucratis in Egypt was called the "Hellenion" (Herodotus 2. 178), while "Hellanodikai" was the name of the judges in Olympia.

The Greek-speaking world was composed of a large number of often fiercely competing city states, and, at its periphery, also some more traditional kingdoms. Thus Hellenic identity, in contrast to many others, was not based on a common political loyalty. Herodotus (8. 144) puts in the mouth of the Athenians a catalogue of what made the Hellenes one people – common blood, common language, common temples and sacrifices, and a common way of life. Since the word used for a non-Greek, "barbarian", originally meant "heterophone" (Homer, *Iliad*, 2. 867 uses "barbarophones" to describe the Carians as "of foreign speech"), language was almost certainly the most important of these. The common genealogies already referred to, the common cult centres and sacrifices associated with the Homeric pantheon, and a common way of life were indeed crucial elements in ancient Hellenic identity. Common political institutions and loyalty are not even mentioned.

What constituted the common way of life? For most Hellenes it was life in a city state, which gave citizens then-sense of political identity and privilege in relation to slaves or serfs. For all, it was the values instilled by the Homeric epics: on the one hand, a close family at home, as witnessed by the *Odyssey*, a safe haven after long periods of absence, especially at sea; on the other, an agonistic or competitive approach to life in society, whether in war, debate, or athletic games, as witnessed by the *Iliad*. Homer was central to ancient Greek education. The spread of many Homeric values to non-aristocrats helped set off major political experiments and encouraged individual achievement among thinkers, craftsmen, and artists alike.

The word "barbarian" is never used in Homer of non-Greeks as a whole. Nor is moral superiority ascribed to the Achaeans compared with the Trojans. After the Persian Wars, especially in Athenian drama (starting with Aeschylus' *Persae* in 472 BC) and Herodotus, there is a clear sense of superiority based on forms of political organization and military and cultural achievement, the first sure instance in which Hellenic identity is partly defined by opposition. Herodotus (1. 1) states that he wrote so that "the great and marvellous deeds performed, whether by Greeks or by barbarians, should not lose

their renown''. From the following chapters it is clear that he saw Persians, Phoenicians, Egyptians, and Lydians as cultured and clearly differentiated, yet equally ''barbarians''.

Although the Persian invasion (480–479 BC), resisted by a voluntary alliance of about 30 city states, proved a defining moment, consensual political unification of all the Hellenes did not follow. In the late 4th century BC Philip and Alexander of Macedon, masters of a kingdom dismissed by Hellenic political opponents as ''barbarian'', justified the imposition of an alliance as a means to obtain revenge against Persia, but this unity too did not survive Alexander's death.

Alexander's conquests (336–323 BC) formed another defining moment. Hellenes poured eastwards bearing their cultural values such as city life, athletics, philosophy, and art. Large numbers of non-Hellenes began to use Greek as a second language. This brought changes to the language, and loosened the connection of its use with Hellenic identity. Earlier in the 4th century BC Isocrates (*Panegyricus* 50) had already advocated that the name ''Hellene'' should be applied to those who shared Hellenic culture, rather than ancestry. By contrast, the other two of Herodotus' defining characteristics, a shared way of life and religion, became more important in a cosmopolitan and linguistically united world.

Political fragmentation assisted the Roman conquest, but Roman rule did not diminish the sense of a separate Hellenic identity for several centuries. The Classical revivalists of the 2nd century AD, though content to be part of the empire, were proud to be culturally Hellenes and politically citizens of their particular cities (no longer effectively ''states'').

Writing to the Corinthians (1 Corinthians 1:18–25) Paul contrasts Jews and Hellenes as two peoples and outlooks from either of which one might come to the Christian faith. What ultimately occurred was more radical. A people noted for its cultural self-confidence and pride in superiority over barbarians came to adopt as its own the empire of one foreign people, the Romans, and the religion, albeit universalized, of another the Jews. The history of Greek-speakers continued under the mantle of the Romaic empire and as a new Israel.

From the 3rd century AD onwards, the growth in transcendental religion and the gradual decline of cities in an increasingly beleaguered empire led to changes first in the content and then in the self-descriptive aspects of identity. Thus by the 6th century ''Hellenes'' had come to mean ''pagans'', actively opposed by Christians. Meanwhile in a significant popular phrase one city alone, Constantinople, came to be known as ''the City'', mirroring the fact that loyalty was now focused on a single state, the empire of the Romaioi, ''Romans'' in Greek. Thus two crucial elements of later Greek identity, the Romaic and the Orthodox Christian, enter the scene, not however in their narrower contemporary sense. They were originally, both in principle and in practice, much broader than the Hellenic identity had been, spreading far beyond speakers of a particular language, aspiring indeed to universality.

If the self-descriptive elements of identity changed, there was considerable continuity in content: first, in language, second, in respect for some ancient cultural values, and third, in continued distaste for barbarians. There were several revivals of Attic Greek (as in the 2nd, 4th, and 9th centuries). More important was the influence of the Septuagint translation of the Old Testament and the original Greek text of the New Testament, which, with the hymnody of the Eastern Church they inspired, had a simultaneously conserving and formative effect on Greek, comparable to that of Luther's translation of the Bible on German and the Authorized Version on English. Equally, there was continuing respect for Classical culture among the educated. Quite as important were folk memories (e.g. of Alexander), traditions, and values among the less educated, including the continued insistence on excellence, for example, in craftsmanship. The ''barbarians'', who were effectively reducing the area of Greek cultural and linguistic influence, were more dangerous than ever. They were now distinguished less by language and more by their uncultured, destructive, and (in the modern sense) barbarous behaviour.

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See also **Hellenes; Language**

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ILLYRIANS

Tribes settled on the northern and eastern shores of the Adriatic

The region where the Illyrians were established is known as Illyria, extending from Epirus in the south to the Danube in the north and as far as the river Morava in the east. The boundaries, however, of the territory of the Illyrians are not clearly defined and little can be learnt from written sources about their origin and culture. Since the Illyrians themselves did not leave any written evidence of their past, information is based on the texts of Greek and Roman authors who referred to these tribes as ''barbarian''; the Greeks identified the Illyrians as an *ethnos* (race) different from the Macedonians, Thracians, and themselves. The personal and geographical names appearing in Greek and Latin records and inscriptions contribute to a partial reconstruction of the Illyrian language. It can therefore be deduced that the Illyrians spoke Indo-European dialects. According to a Greek legend, Illyrios was the son of Phoenician Cadmus and Harmonia, who settled in Illyria, and became the ancestor of the Illyrian people. Recent research has demonstrated that the Illyrians comprised a mixture of ethnic groups who did not necessarily have identical origins. Their formation coincides with the beginning of the Iron Age, around 1000 BC.

The Illyrians came in contact with the Greek Aegean at an early date. Excavation finds from the 8th-century BC cemetery at Vergina indicate a temporary Illyrian presence in ancient Macedonia, especially in its northern and western areas. At the same time, Greeks were attracted to Illyrian territory; the silver mines of the region, located inland – e.g. Damastion – increased their interest. Archaeological finds indicate that Greek imported goods, primarily pottery and metalwork, reached the Illyrians who inhabited the Adriatic littoral as early as the 8th and 7th centuries BC. The first Greek cities were established along the Adriatic coast in the late 7th and early 6th centuries BC. By 627 BC a joint expedition from Corinth and Corfu founded the colony at Epidamnus, and around 588 BC another at Apollonia; both became important centres of trade. Thus, the sea crossing to south Italy passed under Greek control and these two ports remained for many centuries the termini of the route across the southern Balkans. Excavations of the early cemeteries of Epidamnus and Apollonia have brought to light numerous examples of Corinthian pottery as well as local Illyrian products. Although Greeks traded in the region north of the river Drin, they did not establish any settlements either on the coast or inland. Three Greek colonies were however founded on the islands of Black Corcyra (Korcula), Issa (Vis), and Pharos (Hvar), by Cnidians, Parians, and Syracusans respectively. The trade which developed between these Greek colonies and the Illyrians contributed significantly to the latter's development and closer contact with Greek culture.

Illyrians made their appearance in Greek affairs in 424 BC. At this time Brasidas and his Spartan army were in Macedonia to assist king Perdiccas and other opponents of Athens to attack the Athenian colonies in Thrace. The Spartans did not at first become involved in Macedon's war with Arrhabaeus, ruler of Lyncus (who was not an ally of Athens but an independent ruler), but following a Macedonian victory they were persuaded to await the arrival of the Illyrian mercenaries who came to join Arrhabaeus. In 423 BC the joint expedition of Macedonians and Spartans ended in retreat because they feared the warlike Illyrians.

The history of the Macedonian kings is marked by a succession of wars against the Illyrian tribes which ended with Roman intervention in the 3rd century BC. The migration of the Celts at the beginning of the 4th century BC disturbed the territory between the Danube and the Adriatic and forced the Illyrians southwards. Consequently, the need for defence united them under Bardylis around 383 BC. The Illyrian attacks on Macedonia brought the latter close to collapse. King Amyntas II and, later, Perdiccas were defeated and the latter was slain (359 BC). It was only in Philip II's reign that the Illyrians were completely crushed and part of their territory was annexed to Macedonia. The Illyrians attacked Macedonia again in Alexander's time, but they were defeated. In the reign of Cassander an Illyrian tribe, the Taulantii, became involved in the struggle between Epirus and Macedonia, offering asylum to the infant Pyrrhus after the expulsion of his father Aeacides from his kingdom among the Molossians. When Pyrrhus became king of Epirus, he strengthened his links with the Illyrian tribes by marriage alliances.

The wars with Macedonia and Epirus brought the Adriatic Illyrians into contact with the Greek world. Major changes in the social and economic life of south Illyria occurred before the end of the 5th century BC, while in the north similar changes appeared a century later. The urbanization which followed the growth of towns – the first fortifications were built in the 5th century BC at Gajtan – altered the tribal structures and created a demand for greater political autonomy. The first public buildings were not constructed however until around the middle of the 3rd century BC at Byllis.

An Illyrian kingdom was established in the 3rd century BC with its capital at Scodra. The dynasty of the Antigonids in Macedonia was often distracted from its attempt to retain power in Greece by Illyrians, especially the Dardani, on the northern frontier. At the same time, a new power, the Ardiaei, who inhabited the south coast of the Adriatic, emerged among the Illyrians. Responding to the request of Demetrius II of Macedonia, the Ardiaei and their king Agron helped Macedon's allies, the Acarnanians, against the Aetolians in the siege of Medion (231 BC). After Agron's death, the command passed to his widow Teuta and the Illyrians engaged in piracy, ravaging the shores of Greece and Italy. The Greeks turned to Rome for help. The two Illyrian wars with Rome (229 and 219 BC) ended with the submission of the Illyrians and the annexation of part of their territory by the Romans.

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See also **Macedonia; Philip II**

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IMPERIAL CULT

The imperial cult almost certainly owes at least part of its acceptance during the Roman empire to the establishment of ruler cults in the late Classical and Hellenistic periods. Although a divine cult for a living person was against Greek tradition, the Spartan commander Lysander had received a cult on Samos after the Peloponnesian War. Only scanty evidence exists for other divine cults to individuals in the 4th century BC before the time of Philip II of Macedon and Alexander the Great. Whether Philip received a cult during his lifetime is debated, but his son certainly did: his personality, conquests, and unlimited power had elevated him to an unprecedented status that demanded special recognition.

Alexander's successors not only bolstered his worship, but were often granted their own ruler cults. The reasons for this were largely due to the community's need to acknowledge the rulers and their families as individuals of immense power and wealth who excelled all others in their benefactions; the cults were an assertion of the rulers' unique abilities to aid their communities. Some rulers, such as the Ptolemies at Alexandria, also established their own dynastic cults to celebrate their families, but these cults rarely lasted very long.

The creation of a Hellenistic ruler cult involved the construction of a temple or shrine only occasionally (about a dozen are known). Far more common were awards of an altar, priest, sacrifices, games, and statues. Statues of the ruler might even be placed in existing temples of traditional deities, where the ruler would "share" the space, honours, and even qualities of that deity.

The purpose of these cults is still debated: were they religious or political in nature? To deny one in favour of the other is difficult, because politics and religion were very closely entwined in antiquity. What is certain is that the people who founded and managed the cults were creating a new reality in which the immense power and influence of the rulers, who now directly affected life in the Hellenistic world, were given prominent recognition.

The imperial cult was not merely a simple continuation of the Hellenistic ruler cult but was, nevertheless, partially inspired by it. A divine cult to a living Roman became part of Italian culture only through contact with Greek cities. Marcus Claudius Marcellus, who sacked Syracuse (212/11 BC), and Titus Quinctius Flamininus, the liberator of Greece (196 BC), both received divine honours. Yet the practice became more common only a century later as other individuals, Greeks and Romans, were given cults in recognition of their benefactions to communities.

The almost simultaneous adoption of the cult of Roma (the power of Rome) in Greek cities from the early 2nd century BC reflected another aspect of the growth of Roman influence in the east. Much more widespread than the earlier ruler cults, the cults associated with Rome mirrored the development and spread of Roman power; they represented an acknowledgement of that power by the Greeks.

The preeminence of deified Julius Caesar and his adopted son Octavian/Augustus altered the practice of these cults in the east. Augustus was praised as the greatest of all benefactors and saviours in the east, because of the peace attributed to him after the defeat of Antony and Cleopatra. So great was his reputation that, before the end of his life, divine cults to non-imperial family members were no longer being created. The omnipotence of the emperor had been recognized by the eastern communities.

In addition to the hundreds of municipal and private household cults established to celebrate the emperors and their families, eastern provincial assemblies were also given permission to create cults. Emperors were always careful to avoid official deification at Rome itself during their lifetimes (with the exception of Caligula and Commodus), officially becoming deities only upon their apotheosis after death. In the provinces, however, they permitted their worship in conjunction with Roma, other imperial family members, and, eventually, among the cult of previously deified emperors and among the established Olympic pantheon. The practice began in 29 BC, when Octavian had given, at the request of the provinces of Asia and Bithynia, permission for temples to be dedicated to Roma and Divus Julius Caesar at Ephesus and Nicaea, and to Roma and Octavian at Pergamum and Nicomedia. Tiberius, the next emperor, refused a request for his cult from Baetica but granted it to Smyrna where the temple was dedicated to him, Livia (his mother and the wife of Augustus), and the Senate. Emperors did have separate temples to themselves, but they commonly shared the honour with others.

Possession of a provincial cult was so prestigious that cities vied with one another for the honour, which, once given, was advertised in the official title of the city. Grants of these cults were quite rare, making them even more desirable considering the economic and political benefits that accrued to them. The members of the provincial elite who managed the cult also benefited: their status within the community and empire increased. Association with these cults was a statement that they and their families accepted the Roman system and hoped to benefit from it.

Imperial cults could be housed in a variety of types of structures, simple to very grand. Existing buildings, such as stoas and gymnasia, were modified to accommodate the cult; others, such as bath buildings, were constructed with special rooms. Unlike the earlier Hellenistic ruler cults, however, many more elaborate complexes were created for imperial ritual. A Caesareum or Sebasteum, the names sometimes used for these special sanctuaries, had no absolute model but might include a temple, altar, and statues among its other features.

The imperial cult was regarded by some in antiquity merely as a form of flattery (Tacitus, *Annals*, 6. 18). Its religious and political importance to the empire is still debated. The ritual probably did help to bring Greek and Roman together, but whether it created any sense of loyalty or instilled devotion among the inhabitants of the empire is difficult to say. Whether the emperor was regarded as a truly divine being is undeterminable; many of the poor and uneducated may have believed so. Yet, since the imperial cult was rarely imposed by the emperor or his court, most will agree that this indicates a willingness on the part of the Greeks to accept the new conditions that accompanied the control of their lands by Rome. The celebration of the imperial cult was an expression of gratitude for the benefactions received or ones that might come in the future. It does not prove or even indicate any real piety towards the emperor. The establishment of Christianity in the 4th century ended the practice.

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IMPERIALISM

Most wars in ancient Greece not fought to gain independence were, as elsewhere, motivated by either the fear or hope of plunder, economic exploitation, or outright annexation. All self-governing Greek states were at all times in some form of military preparedness, if not, as was very frequently the case, actually at war. War, like slavery, which it often facilitated, was so common as rarely to provoke questioning of its morality: whether a Greek was or became free or slave was a quotidian accident of the human condition. The Greeks' love of freedom sprang from a perfervid desire to have complete control over their own destinies, a desire that did not question the right to control the destinies of others; and in confirmation of this, Greek gods of war were deemed far more powerful than any god of peace. As Thucydides makes Athenians inform the Spartans, "it has always been an established rule that the weaker are kept down by the stronger" (1. 76. 2), while Aristotle adds to preservation of one's own liberty and hegemony over one's subjects as legitimate aims of war "the exercising of the role of master over those who deserve to be slaves" (*Politics*, 1334a2). Thus the continual imperialist bullying by even small states of each other is the very warp of the tapestry of Greek history; and any alliances were inexorably doomed to ephemerality or continuous internal dissension.

The earliest form of Greek imperialism was the *synoikismos* (literally "living together") of the Dark Age, the process by which the polis, or city state, emerged; but the extent to which surrounding communities joined the dominant city voluntarily or under coercion is usually unknown: presumably it varied. In most of these city states equal citizenship was enjoyed by all members. Sparta, however, which became by far the largest city state and had by the end of the 8th century BC conquered Laconia and most of Messenia, was governed by an elite group of Dorians who reduced the mass of the inhabitants (the *perioikoi*, literally "those who live in the surrounding area") to second-class status or collectively owned helotry. Although this policy was not unique to the Spartans, the scale on which they applied it necessitated the reorganization of the elite as a permanent standing army for internal protection (the Lycurgan reforms), which in turn excited further, though often unsuccessful, imperialist adventures in the northern Peloponnese, central and northern Greece, Asia Minor, and even Sicily.

Colonization, which occurred chiefly in the period *c.*750–*c.*550 BC, was driven largely through internal pressures rather than imperialist desires, since most colonies were completely self-governing, though retaining religious, cultural, and commercial links with the *metropolis* (mother city). Nevertheless, they were planted, sometimes peaceably and sometimes by force of arms, on the littoral of the Mediterranean from northeastern Spain, southern France, and southern Italy and Sicily to Libya and what is now southern Turkey and on the eastern and southern shores of the Black Sea. They remained essentially Greek, although there was some acculturization of neighbouring peoples, and many had a long history, some in Asia Minor and Pontus enduring until 1922. In the second half of the 6th century BC the settlers in Asia Minor became the first Greeks to experience foreign imperialism when, having survived the harassment of an expansionist Lydia, they succumbed to the Achaemenid Persian empire, which did, however, practise religious tolerance and generally appointed Greeks as satraps under the watchful eye of officials of the Great King. It was mainland Greek help in the uprising of these cities which led to the Persian Wars of 490–479 BC and the subsequent Athenian attempt at hegemony.

The Delian League (a modern term) was formed in 478 BC to defend Greek states against further Persian reprisals, but its leader, Athens, clearly had imperialist ambitions from the beginning when it forcefully coerced Eion to join. Athens' attempt, despite some federalist elements in the city, to establish for its own economic benefit a rival to the Spartan-led Peloponnesian League is dear from actions such as the reduction of Thasos, which attempted to secede in *c.*465–462 BC, the transfer of the treasury from Delos to Athens in 454 and the gradual substitution of monetary "tribute" for supplies of ships, the imposition of a huge indemnity on Samos for defiance in 440 BC, and the killing of all adult male citizens and enslavement of the rest of the island's population when Melos refused to join in 416 BC.

The first half of the 4th century BC was marked by various short-lived imperialist attempts by, for instance, Thebes and, in Thessaly, Jason of Pherae; but it was Philip II of Macedon who, having first brought his semi-autonomous barons to obedience and established a standing army, successfully extended his rule over all Greek mainland states except Sparta. Panhellenism, a movement to unite all Greeks against Persian threat, which had been preached by men such as the Athenian Isocrates, played a part in his ambition to invade the Persian empire, but his death in 336 BC left its execution to his son Alexander III. Despite some contemporary propaganda and the romantic view of

universal brotherhood held by some modern scholars, the megalomaniacal Alexander was activated by an insatiable lust for conquest which was terminated only by his soldiers' refusal to continue and his own subsequent death. He made little attempt to organize the vast swathe of territory which he had overrun, his policy of forcing Macedonian officers to marry Persian women being driven principally by an infatuation with the charms of Persian imperial trappings and the desire to create an elite neither Macedonian nor Persian with loyalties to himself alone. His conquests did, notwithstanding, have the enormous consequence of spreading a veneer of Greek culture over the Near East and establishing a simplified form of the language as the lingua franca (as evidenced in the New Testament), a legacy which survived the area's incorporation into the Roman empire.

Alexander's failure to nominate an heir ensured the immediate fracturing of his empire, 'which fell into three main successor states: one (Antigonid) mainly in Macedon and Greece; one (Seleucid) stretching from Anatolia to, initially, Central Asia; and one (Ptolemaic) based upon Alexander's eponymous city in Egypt, which, despite its Macedonian rulers, replaced Athens as the principal centre of Greek culture. Greek imperialism was now exercised by individual rulers attempting to expand their personal empires at their rivals' expense. In the 2nd century BC some small breakaway Greek states invited the Romans to aid them resist reabsorption, but the continuing threats from Macedon and the Seleucids and even quarrels among the smaller states themselves induced the Romans eventually to abandon their policing of Greece and embrace it within their own growing empire. Apart from the destruction of Corinth in 146 BC Roman rule in Greek lands was remarkably lenient. The Roman attitude towards their inhabitants was contempt for their moral laxity, fractiousness, and military inferiority mingled with an admiration for their culture so strong that the poet Horace admitted (*Epistles* 2. 1. 156) that the captive held its captor captive, while upper-class Romans communicated with each other in Greek by preference.

It may be argued that Greeks were involved in the creation of the Roman empire, since its first province, Sicily, was created in 241 BC at least in part to facilitate the Romans' protection of the Greek colonies there against Carthaginian attacks. Moreover, the traditional Roman fetial (priestly) prohibition of the "unjust" war was in theory strengthened (though in practice weakened) by the influence of Greek Stoicism after the Rhodian Panaetius (an intimate of Scipio the Younger and the most important political figure in mid-2nd-century BC Rome) rejected the excesses of Stoic exclusivity and made Stoic philosophy amenable to generals and statesmen. Thus any non-civil Roman war became "just", since it potentially brought the benefits of a superior Roman civilization to the benighted nations of the world and legitimized the elimination of any rulers who opposed conquest. In Virgil's memorable words, Rome's mission became "to spare the down-trodden and vanquish the proud" (*Aeneid*, 6. 853). The process of imperial territorial acquisition and human absorption into the state reached its natural conclusion in an edict of Caracalla (the Antonine Constitution), which gave citizenship (although most of its advantages had by then been abolished) to virtually all free members of the empire probably in AD 212.

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See also **Colonization; Delian League; Hellenization; Political History 490–323 BC; Political History 323–31 BC; Political History 31 BC–AD 330; Roman Period**

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INHERITANCE

The transfer of property upon the death of the owner is known as inheritance, and almost every country has special laws that regulate the disposition of private property after the owner's death by naming the relatives or other persons who have first rights of inheritance. It is also permitted to transfer property to persons other than those specified by law by means of a will (the legal instrument that embodies the owner's ability to dispose freely of his or her property posthumously), and rules for making such wills are also set by inheritance law. The person who inherits or who is entitled by law to inherit property after the death of its owner is known as an heir, while the dead owner is called the decedent. Upon the death of a person, the title to all the property, both personal and real, must pass to someone. If there is a valid will, property usually passes to the legatees, i.e. the persons directed by the decedent. In the absence of a valid will, the decedent is said to have died intestate, and the law must then decide who the valid heirs are, and the order and proportion by which they inherit. This is done according to statutes known as intestacy laws. Strictly speaking, an heir is a recipient of money or property left by someone who died intestate, whereas the beneficiary of a will is technically known as a legatee or devisee. But in common usage "heir" refers to anyone awarded an estate, whether or not the deceased person left a will.

In ancient Greece, where our evidence comes chiefly from Athens and the Cretan city of Gortyn, intestate succession was favoured. Wills, which were normally written and witnessed, were allowed only when the testator had no sons. First in order of succession came the dead person's sons and male descendants. Thus, if a deceased man left legitimate sons, they shared the property equally, the eldest getting no more than the others. The western medieval right of primogeniture – according to which land devolved automatically on the eldest legitimate son – had no place in Greek society. If a son died before his father and left sons of his own, then those sons inherited their father's share. If there were no sons or male descendants, the inheritance passed to the decedent's brothers and male descendants, and in the third place to the sons of the decedent's grandfather and their male descendants. Ascendants were excluded if their descendants were alive: the father did not inherit if a brother of the deceased was alive; nor did the grandfather, if an uncle was alive. No distinction was made between natural and adopted sons; but children born out of wedlock were illegitimate, and had no claim on the father's estate. During the Byzantine period, however, all natural persons (i.e. blood descendents, including slaves, minors, and the unborn) could inherit, as also could corporate bodies, communities, the Church, or pious foundations. Christianity, in fact, encouraged donations at death to churches and monasteries as well as the distribution of part of the inheritance among the poor. Moreover, under Byzantine rulers, the state demanded part of the inheritance in the form of voluntary grants or as a mandatory obligation. However, the right of individuals to inherit was diminished or even precluded by a set of punishable offences and other factors: heretics, apostates, and even children of a mixed marriage with a heretic were excluded from succession while manumitted slaves might receive only the so-called *legata* (special legacies). There were also restrictions regarding the inheritance of certain specific types of property: *stratiotika ktemata* (military goods), for example, could be inherited only by those capable of fulfilling military service (perhaps a similar objective was achieved by the Homeric heroes through prizes given at funeral games, cf. *Iliad*, 23). Although slaves could inherit under the Byzantine empire, they were not given the right to transfer property upon death. However, wills of women and monks are known and *paroikoi* (tenants) were entitled to transfer their lands to heirs, though probably only with the approval of their lords.

In Classical Athens the claims of sons and male descendants could not be set aside by testamentary dispositions. Males generally excluded females in the same group of kinship. Only in the absence of sons or male descendants of predeceased sons could a daughter inherit. She was obliged to marry the man to whom her father had destined her either when he was alive or by a will. Failing such disposition, the daughter could be claimed by the next collateral together with her father's fortune. But if a son remained, the daughter had no right to succeed and could demand only a dowry, to be determined at the discretion of her brother. If she was divorced or was childless after marriage, the dowry went back to the heirs, i.e. the male descendants. If the decedent left a daughter but no son, and if the daughter had a son, he would inherit. But as long as she was without a son, she was *epikleros*, i.e. a sort of "heiress", who could be claimed in marriage by her nearest male relative who took charge of the property until their son was old enough to take it over. One must not, however, conclude from this that women in Greek cities could not inherit. Literary and epigraphical sources, from Athens, Gortyn, Naupactus, and Thermus in Aetolia, of the 5th–3rd centuries BC, suggest that women did inherit, in a succession order of varying complexity in different states. In the absence of legitimate children, the inheritance could be claimed by relatives within the *anchisteia* (close kin). It was in effect possible for a man without sons to choose an heir by adoption and thus ensure the continuance of his family and the religious worship connected with it. The adoptee became legally the son of the adopter and so inherited the property, but could not oust an *epikleros*; he might marry her himself (in which case the chief share of the inheritance would fall to this married daughter and her husband, while any other daughters would be given dowries), but anyway her son inherited eventually. If a son had not been adopted, and there were only daughters surviving, the succession passed to them. In such a case the next of kin had a legal right to one of the heiresses, and could claim to marry her even if she had married someone else before receiving the inheritance. On the other hand, poor heiresses had a legal claim on their nearest of kin either for marriage or for a provision suitable to their circumstance. A man who married an heiress was bound by custom and tradition, if he had sons, to name one as heir to the property that had come with his wife, and thus to restore the house.

According to tradition, it was Solon (*c.*640–560 BC) who introduced wills to Attic law. Previously, the estate of a childless man had gone to his clan. Because it gave one the power to dispose of property after death, the right to make a will was a recognition of the right of private property rather than of family, clan, or tribal ownership. We have surviving accounts of the wills of some well-known personages of antiquity. Aristotle was generous in providing for his family and friends, while Epicurus willed his property to the school hoping "that all those who study philosophy may never be in want ... so far as our power to prevent it may extend" (Diogenes Laertius, 10). According to his first speech *Against Aphobus* (no. 27), Demosthenes' father left in trust for him an estate worth about 14 talents, including two small businesses in cutlery and furniture. The Athenian banker Pasion in his will appointed his former slave Phormio as guardian for his younger son, entrusting him with the management of the bank until the boy should come of age; he also stipulated that Phormio should marry his widow (Demosthenes, 36). Some of the purposes of a will had been achieved by resorting to adoptions, which continued to be common and were treated to some extent like wills. But the will took effect only on the testator's death. No formality was needed for legitimate sons to take possession of the inheritance, and they had no right to refuse it. Other relatives, however, needed an official authorization. If a man died intestate, leaving neither descendants nor adopted sons, the inheritance fell to his nearest relations in the male line and, in default of these, to those in the female line as far as children of first cousins. It was also possible to resort to posthumous adoption by which relatives arranged for one of themselves to become legally the deceased man's son. Disinheriting, however, was possible only in the father's lifetime by solemn declaration. It was not possible to disinherit legitimate children by means of a will or adoption.

At Athens anyone who thought that he had a legal claim to an inheritance made an application to the archon to hand it over

to him. This application was displayed in public and read our in the following assembly. The question was then asked whether anyone disputed the claim or raised a counterclaim. If not, the archon assigned the inheritance to the claimant; otherwise the matter was decided by a lawsuit. Even an inheritance once assigned might be disputed in the lifetime of the holder and for five years after his death. The same procedure was followed regarding the claim of the nearest relation to an heiress. The Athenian orator/speech-writer Isaeus (*c.*420–*c.*350 BC) appears to have specialized in cases of inheritance. Of some 50 speeches with which he was credited, the 11 that have survived in entirety all deal with cases of inheritance and are important as illustrations of Athenian testamentary law.

According to the Gortyn law code (12 columns of laws engraved on the interior wall of a former courthouse and attributed to the 5th century BC), the property was shared by the sons and daughters, but a son got twice as much as a daughter, as happens de jure among the Muslims (cf. Qur'an 4: 2 and 34). A daughter without brothers was called *patroiochos* and her rights were generally similar to those of the *epikleros* at Athens, although there were differences of detail.

Both forms of transferring property – through a will and through intestate succession – were recognized in the Byzantine empire. It was also possible to enter into an informal agreement when a dowry was promised for a marriage contract, so that these agreements assume the character of both marriage and inheritance contracts. By the time of the code of Justinian (AD 529), Roman law recognized many types of wills, including oral wills declared in the presence of seven witnesses or before a public official. But for the Byzantines, the will represented only one of many dispositions that a living person could make in view of his death. On the one hand, for a will to be valid, it was not necessary for an heir to have been appointed and, on the other hand, it was possible to make *legata*, *fideicommissa* (bequests in trust), donations in view of death, to pious foundations, distributions of money for the good of the soul (*psychika*), and similar arrangements independently without being part of a formal will.

The heir entered into the legal position of the deceased and therefore became responsible for the obligations of the testator just as he, in his turn, could put forward the claims of the testator. The heir was also considered a debtor of the legacies bequeathed by the testator. To keep the heir's own property from being liable for the debts of the deceased, it became the practice from the time of Justinian I to establish an inventory documenting the size of the inheritance. A limitation on the responsibility of the heir for paying the bequests made by the testator was guaranteed by the Falcidian Law of 40 BC.

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See also **Adoption; Children**

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INSCRIPTIONS

Inscriptions can be taken to refer to objects made of different materials – e.g. pottery, clay tablets, metal, and most usually stone – on which letters have been carved, drawn, or painted. The study of inscriptions (epigraphy) usually focuses on inscribed stone or metal objects. In this article some mention will he made of inscriptions on pottery, clay tablets, and coins, but the focus will be on stone and metal inscriptions.

Inscriptions provide the cultural historian of the Hellenic tradition with a wealth of ideas and information about the past and the ways in which the people of the past presented themselves. Inscriptions are more familiar to the historians of the Graeco-Roman world, but inscribed material from the Byzantine, Frankish, and Ottoman eras is also known.

Some students of history still make the mistake of thinking that epigraphic evidence has a greater value than other forms of evidence because of its often more durable nature. Inscriptions, like much historical evidence, have been produced in a temporal and spatial context often with a self-conscious appreciation of meaning and function. The evidence of inscriptions is therefore laden with difficulties of interpretation, in addition to the fact that not all the material that was inscribed has survived or been discovered. Further, not all areas of Greece or Greek communities inscribed; nor did all Greek communities inscribe all the time. These phenomena can be summarized by the term "epigraphic habit". Of all ancient societies, the Greeks were among the most advanced in terms of their epigraphic habit; and of the Greeks, the Athenians provide the most extreme example of display through inscriptions. Greek inscriptions are one index of the diffusion of Greek culture, and their distribution reaches far beyond the shores of the Mediterranean: Greek inscriptions and organized modern collections of ancient material appear in Bulgaria, Romania, and southern Russia; a large body of evidence exists in the Near East, along the African coast, particularly in Egypt and Cyrene. Greek inscriptions appear all over the Graeco-Roman world, thereby illustrating the importance of the Greek language for the development of Western culture.

But in many communities inscriptions were made not only in the Greek alphabet. From some periods and some regions a combination of languages have survived on some inscriptions. The Letoön trilingual is an inscription which provides a parallel text in Aramaic, Greek, and Lycian (Davies, 1983, pp 244–45). In many areas during the Roman period, bilingual Greek–Latin inscriptions were made, the *Res Gestae* of Augustus being perhaps the best-known example (Brunt and Moore, 1967). From

the Classical and Hellenistic periods, numerous bilingual inscriptions in Greek and Phoenician have survived, especially on Delos, on Cyprus, and at Athens.

Greek inscriptions first appeared in the Archaic period; the earliest known examples are scratched or painted on pottery and date to the second half of the 8th century BC. Their appearance touches on the related question of the introduction of the Greek alphabet. Modern understanding of the introduction and development of the Greek alphabet is heavily dependent on inscriptions. Of the inscriptions which survive from the archaic period, many examples exhibit a significant difference both in regional dialects and in local letter styles (Jeffrey, 1961).

Although very few of the early inscriptions amount to lengthy texts, the majority are dedications, brief commemorative statements, often in a funerary context. An inscribed bronze helmet dedicated by the Syracusans to Zeus at Olympia is an offering made from the spoils of a victory over the Etruscans by Hieron after a battle at Cumae (Fornara, 1977, no. 64A). According to Diodorus Siculus (11. 51), the successful naval battle was fought in 474 BC. The first lengthy inscriptions survive from the 6th century BC. Among the best known are the legal texts from Crete and in particular the great code from Gortyn which gives vital details about the organization of the Dorian community (Fornara, 1977, no. 88).

By the 5th century BC many areas of the Greek-speaking world were producing inscriptions, often of some length. Athens was the leading producer, exploiting the high-quality marble of the Penteli and Hymettus mountains on which to inscribe decrees. The so-called Athenian tribute lists record the offerings (1/60 of the tribute payment) made to Athena by members of the Delian League. The lists were set up on the Acropolis in Athens and are the largest and probably the most studied series of documents from the 5th century. They provide a lengthy and detailed, if incomplete, list of the payments made by the individual cities who were subject allies of Athens from the middle of the 5th century to the last years of the Peloponnesian War (see Nixon and Price, 1990). In contrast to Athens, its main rival, Sparta, does not offer any detailed epigraphic record for the Classical period. Stone inscriptions were not produced in Sparta in any real quantity until the end of the Hellenistic period.

Inscriptions have many uses in exploring the past. They provide highly specific information, sometimes giving very accurate dates. Ancient chronology is complicated by different regional and civic dating systems. The Parian Marble lists historical events from the early history of Greece down to the 3rd century BC but is riddled with inconsistencies and confusions (Fornara, 1977, no. 1; Harding, 1985, no. 1; Austin, 1981, no. 1). The vast number of inscriptions from Athens provides a well-established body of carefully dated material. The day, month, and year, and the sitting public officials are given in the prescripts of most decrees of the Athenian people.

Inscriptions also offer a huge range of names and form the basis of the study of names (onomastics) and of named individuals (proposopography). The *Lexicon of Greek Personal Names* has collected all known instances of names from different regions of Greece; inscriptions provide the majority of the known evidence.

Inscriptions can also give particularly useful details about events and periods of history. Epigraphic evidence is often the only contemporary documentary information which survives for certain periods of history. The Athenians formed an alliance in 378/7 BC with Thebes and other Greek cities; the founding agreement of the alliance has survived on stone but its existence is omitted, notoriously, from Xenophon's account of this period of 4th-century Greek history (Cargill, 1981; Harding, 1985, no. 35).

Other areas of cultural and social history are illuminated by the evidence of inscriptions. There has been considerable controversy over the extent to which the ancient Greeks practised exposure of infants. Pomeroy (1983) has argued on the basis of an inscription from late 3rd-century Miletus that selective female infanticide may have been practised among the families of mercenaries. Inscriptions supply enormous amounts of information and details about religious practices in antiquity. Sacred laws were inscribed on stone, as were calendars of religious festivals, dedications to deities, the financial accounts of cults, and decisions of cultic organizations.

The skill and dedication of those who study inscriptions have yielded valuable results. Different regions of the Greek world produced distinctive letter forms. In some areas there are sufficiently large numbers of inscriptions for experts to identify different "hands" of those who inscribed stones. S.V. Tracy has elevated the study and identification of the letter-cutters to such a high degree that many Athenian inscriptions of the 4th to the 1st centuries BC can be dated on the basis of the syle of the carved letters alone (Tracy, 1990, 1995).

Inscriptions were erected by a variety of authorities in antiquity. The state decrees are the most useful source of information for historical events, often concerned with major events or individuals who played some role in them. The most common form of public decree records the community as a whole honouring an individual. Such honorific decrees can be very formulaic in their phrasing and award of thanks. Crowns of olive, ivy, oak, or gold, property ownership rights, seats in the theatre, public acclamation, statues, citizenship rights for an invididual or his family and descendants, and of course erected inscriptions were all different ways in which people were honoured. Many of the honorific decrees from the 4th century onwards reveal important historical details: from Athens in the 270s the decree honouring Callias of Sphettus has revolutionized knowledge of the poorly documented first half of the 3rd century (Shear, 1978).

Public decrees also present important details about the political organization of communities. A collection of Greek public decrees made by Peter Rhodes allows such comparisions to be made among the epigraphically active Greek communities (Rhodes and Lewis, 1997). In the post-Classical period there was a massive increase in the number of communities producing inscriptions, particularly in Asia Minor. The political ideology of a community is often transmitted in its decrees. Decrees were passed by the public assembly, or council, or subgroup of the community (e.g. deme, tribe, etc.). While it is exceptional that fairly detailed descriptions of the Athenian and Spartan constitutions are available from literary sources, the political structures of other Greek communities can sometimes be reconstructed only through the study of inscriptions.

Honorific decrees typically account for the achievements of the honorand, especially from the mid-4th century onwards. But a number of inscriptions self-consciously reframe past

events for a contemporary audience. The Themistocles decree from Troezen (Fornara, 1977, no. 55) was inscribed in the 3rd century and provides details of the career of the Athenian general who laid the foundations for the 5th-century empire and commanded the Greek forces against the Persians in 480 BC. From Cyrene a 4th-century inscription erected in the temple of Apollo seems to contain the text of the oath of the settlers who had originally founded the city (Fornara, 1977, no. 18). The founders had travelled from Thera, and established the settlement on the Libyan coast which flourished under the Battiad dynasty in the archaic and early classical periods. The 4th-century text allowed people from Thera to claim property and rights in Cyrene on the basis of the terms of the original 7th-century agreement of the settlers which is here reinscribed. Both the Themistocles decree and the Cyrene inscription illustrate how inscriptions can contain unique documents which not only shed light on history, but also represent how history was shaped for subsequent generations in ancient Greece.

However, it is a mistake to think of inscriptions as simple archives of information. Certainly, decrees and laws served as extensions of a city's authority and legislation. Public records were kept in many Greek cities or temples, but often on perishable materials. The proportion of inscriptions written up on stone was always very small, but did at least represent an authoritative voice in a city's affairs. By the 3rd century BC collections of such decrees were being made, indicating that a far greater awareness of the information that the inscriptions contained was developing: Craterus (*c.*321–255 BC) published nine volumes of Athenian decrees.

But public decrees are only a small proportion of published inscriptions. A vast array of groups and individuals had inscriptions set up, e.g. groups of soldiers, demes, associations, religious organizations, ambassadors, kings, mothers, fathers, husbands, wives, widows, and children. The largest single type of inscription is the funerary monument; a rough estimate would suggest that of the known inscriptions from Athens between 400 BC and AD 267 perhaps as many as 70 per cent are funerary.

The epigraphic habit of the Greeks was passed down to the Romans. Greek communities continued to inscribe throughout the period of the Roman empire and beyond. The numbers of the later inscriptions are much smaller and their study is less well established than for the Graeco-Roman periods. Inscriptions from the Byzantine period exist but are fewer and the material has not been studied thoroughly: funerary inscriptions are less elaborate and details of donors and benefactors appear painted on pictures.

The Frankish and Ottoman domination of the Greek world imposed different authorities. Few inscriptions survive from this period, and the epigraphic habit virtually died out. However, the study of inscriptions developed in the Middle Ages. Cyriacus of Ancona (1391–*c.*1455) visited Greece in the 1430s and 1450s and on both occasions recorded inscriptions. The Italian scholars of the Renaissance promoted epigraphy as a subject of value, and although their work concentrated on Italian material, it promoted an interest in inscriptions and enabled the future explosion of interest in Greek epigraphy. Numerous travellers to Greece continued to record inscriptions. In the 17th century, Jacob Spon and George Wheeler recorded texts; the stones themselves became desirable objects. Thomas Arundel collected ancient marbles, including both sculpture and inscriptions. His most famous inscription was the Parian Marble, a catalogue of dates and events drawn up and inscribed in 264/63 BC. The increasing popularity of the Grand Tour in the 18th century ensured that more travellers from western Europe reached Greece. Antony Askew, an English doctor and amateur philologist, recorded over 200 inscriptions at Athens in 1747. The intensifying interest in Greek culture in the late 18th and early 19th centuries resulted in the removal of many antiquities from Greece, most notoriously the Parthenon marbles. Inscriptions were among the stones removed from Greece, and in the early 19th century the study of epigraphic material reached new heights with the publication by A. Boeckh of the first volume of the *Corpus Inscriptionum Graecarum* (1828).

Inscriptions have become an easily identifiable feature of ancient culture. They offer a remarkable insight into the life and history of the people of antiquity. The legacy of ancient Greek inscriptions for Western culture is quite remarkable: one has only to visit any major 19th-century European cemetery to find imitations of inscribed gravestones from classical Greece. But it is the study of inscriptions and the appreciation of their importance in reaching an understanding of Greek culture that have progressed most rapidly in the last 200 years.

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See also **Alphabet; Archives; Onomastics**

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INSTRUMENTS, MUSICAL

Musical instruments, many of them borrowed from or shared with neighbouring cultures, have featured prominently in Greek music-making since antiquity. Whether played solo or in ensembles, they have been employed at various times in history for recreation, to accompany songs and dances, and to enhance religious and civic ceremonial. Certain instruments and ensembles have tended to be characteristic of the musical cultures of particular geographic regions or historical periods, with others relegated to special functions or particular classes of people. In both ancient and modern Greece, for example, reedless pipes (*syringes* and *floyeres*) have been associated with shepherds, while rams' horns (*kerata*) and conches have been used as signalling devices.

Since very few specimens have survived even partially intact, scholars studying pre-modern Greek instruments rely heavily on the testimony of literature and art. The number of ancient literary references to instruments is vast and ranges from practical observations to discourses by Plato and Aristotle on their proper role in society. These are all predated by the representations of instruments in Cycladic statuettes of the 3rd millennium BC. Minoan, Mycenaean, and Cypriot art of the 2nd millennium BC depicts the use of lyres, harps, pipes, and other instruments in both cultic and domestic circumstances. For the organology of the Archaic and Classical periods, the many detailed representations of instruments and their players on painted pottery are particularly valuable resources. Much later, illuminated manuscripts and church frescos preserve important information regarding the instruments of the Byzantine and post-Byzantine periods.

Ancient Greek music was dominated by lyres and the wind instruments known as *auloi*. Hellenic lyres, unlike those of their neighbours, were always constructed symmetrically with a soundbox at the base and a pair of arms supporting a crossbar at the top. Suspended between the soundbox and the crossbar were strings of equal length. These were normally made of gut or sinew, passed over a bridge on the soundbox, and tuned at the crossbar by means of thongs or pegs. The instruments were played either by plucking the strings with the left hand or by striking them with a plectrum held in the right hand. Although variants on this basic design appear in ancient literature with overlapping appellations, Greek lyres may conveniently be grouped according to the shape of their soundboxes into box lyres and bowl lyres. Seven- or eight-string specimens of the louder and structurally more complex wooden box lyres, which featured a larger soundbox extending to the arms, appear in Minoan and Mycenaean art. Scholars have identified the smaller and simpler models with a reduced number of strings that appear in later geometric art with the *phorminx* of Homeric epic. With the emergence in the 7th century BC of the *kithara*, a lyre used by professionals in competitions, more elaborate versions again began to be depicted. Timotheos and other innovators of the 5th century BC subsequently extended the harmonic capabilities of the kithara through the addition of up to five additional strings. In addition to a standard square-based concert model, several variants have been identified, including a rectangular "Italiote" kithara and a smaller "cradle" kithara normally played by women. Unlike these kitharas, bowl lyres (such as the *barbitoi*) had a small rounded soundbox made from a tortoise shell or wood covered by hide, and thin arms in the shape of horns, from which they were occasionally fashioned. Small models were employed by amateurs and in education, whereas the larger and therefore deeper *barbitos* was associated with the lyric poetry of Sappho and Alcaeus, as well as with scenes of revelry.

Despite its common mistranslation as a "flute", the aulos was actually a cylindrical reed instrument with finger holes. Early models seem to have featured 3 to 5 holes, while later concert instruments are recorded as possessing up to 24. Although auloi with a single reed like the modern clarinet were probably not unknown, most were fitted with a double reed, thus making them akin to oboes and shawms (e.g. the modern Greek *zournas*). Some players wore a leather strap (*phorbeia*) around their head to support both their cheeks and their instruments, the latter of which came in various sizes and were usually played in pairs. Most artistic representations of paired auloi, the earliest of which is a Cycladic figurine in white marble of the mid-3rd millennium BC (now in the National Archaeological Museum, Athens), show instruments of equal length. Since most ancient art depicts the player's hands in approximately the same position, it is likely that unison playing and heterophony were the norm. Nevertheless, the occasional use of drones and bursts of simple polyphony may be inferred from scattered literary references. Some of these passages, however, may refer specifically to the less common "Phrygian" auloi of unequal length, the larger of which is represented in art with an upturned bell. Credited with the ability to arouse strong emotions, auloi were used publicly in religious rituals, drama, and dance, and domestically at banquets and symposia.

The ancient Greeks employed a variety of other instruments in addition to lyres and auloi, the number of which increased in Hellenistic and Roman times. Harps (e.g. the *trigonon*, *pektis*, and *magadis*) were usually played by women in private during the Classical period, after which larger concert models evolved. Lutes appeared in Cyprus as early as *c.*1400–1200 BC, but it was not until the 3rd century BC that the three-stringed *pandoura* appeared on the Greek mainland. Other instruments that were adopted from the east in later centuries included the bagpipes and the *psalterion*, a form of zither. The *syrinx* (panpipes), as has already been mentioned, was generally considered a pastoral instrument, as was the later transverse flute (*syrinx monokalamos* or *photinx*). Rattles (e.g. the *seistron*, borrowed from Egypt), cymbals (*kymbala*), clappers (*krotala*), drums (*tympana*), and

other percussion instruments were used for apotropaic purposes, for rhythmic accompaniment, or as toys. Early brass instruments such as the trumpet (*salpinx*) were used mainly for signalling, for example to sound the attack in battle or to issue a call to worship. During the Roman period, however, fanfares played by military bands of brass and percussion instruments became a fixture of state ceremonial and remained so until the end of the Byzantine empire.

Also rising to prominence only after the classical era was the *hydraulis*, a hydrostatic organ invented during the 3rd century BC by the Alexandrian engineer Ctesibius. According to Hero, the *hydraulis* supplied a steady flow of pressurized air to its pipes with a piston that expelled water from a chamber (*pnigeus*) lying at the bottom of a scaled cistern. Initially this invention appears to have attracted little attention, but a Delphic inscription of 90 BC records the prize-winning participation of an organist in a competition. Sometime around the 2nd century AD the mechanically complex piston was replaced by bellows, which could be used with or without a cistern. By late Antiquity large organs with multiple ranks had become common in amphitheatres and other public venues, while smaller instruments often graced banquets.

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See also **Music**

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IOANNINA

City in Epirus

Located on the western slopes of Mount Pambotis in the centre of Epirus (the northwesternmost district of Greece), the city of Ioannina has over its long history come under the control of a number of different cultural influences. The site on which Ioannina now stands has been invaded by Alexander the Great, by Byzantines, Romans, Normans, Venetians, Serbs, Turks, Albanians, and, finally, in 1913, by Greeks, who joined Epirus to the modern Greek state in the course of the Balkan Wars. Despite these many external influences, Ioannina has throughout its history been known as a centre of Hellenism.

Much about the city's origins is hotly debated – even its name is of uncertain provenance. Numerous historians (Leake, Hatzedakes, Aravantinos) argue that the name "Ioannina" is taken from the monastery of John the Baptist; others claim that the city was first named after an unidentified Slav called Ioannes; others still that Ioannina was the name of the daughter of one of Justinian I's most valued soldiers.

While it is unclear exactly when the site was established as a city, the historical record indicates that the area has had a sizeable population since the time of Alexander the Great (d. 323 BC). The province of Epirus, of which Ioannina is now capital, was under Roman rule from 168 BC to AD 375. The settlement's growth and establishment as a city of significant proportions was effected under Byzantine rule, which began in AD 375 and continued (with interruptions) until 1430.

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See also **Epirus**

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IONIANS

Ancient Greek ethnic group

The term "Ionian" was employed in two senses in antiquity. In the first place it designated the Greek populations settled in the coastal cities of central Asia Minor and occasionally, by extension, the neighbouring populations in the Troad area in northwest Asia Minor (more properly Aeolians) and in southwest Asia Minor (more properly Dorians). This designation may possibly have originated as a general external appellation for Greeks, who were known throughout the east as Yawani (cf. Old Persian *Yauna*; Old Hebrew *Javan*). However, the term could also be used in a broader sense: in the historical period Athens, Euboea, the Cycladic islands, parts of Sicily (Naxos, Leontini, Catana, Zancle, Rhegium), Italy (Cumae, Siris) and the western Mediterranean (Massalia, Emporion) as well as the central coastal strip of Asia Minor all claimed a common Ionian identity on the basis of perceived similarities in dialect, rituals, customs, and shared origins. It is entirely possible that the second definition was a historically later extension of the first.

Recent archaeological excavations at Ephesus claim archaeological continuity from the Mycenaean age into the Geometric period. By contrast, although the Homeric epics list "Ionians with their flowing tunics" among the Greek contingents at Troy (*Iliad*, 13. 685), there is no mention of Ionians established on the coast of Asia Minor. Indeed, the earliest extant literary

references stress that the Ionian cities of Asia Minor considered themselves to be relatively recent foundations from mainland Greece: the 7th-century elegiac poet Mimnermus (fr. 9) describes how Colophon was founded by Pylos, while 5th-century sources attribute the foundation of Priene to settlers from Thebes (Hellanicus, frag. 101), of Miletus to Neleus, son of the Athenian king Codrus (Herodotus, 9. 97) – dated to 1077 BC by the Parian Marble – and of Ephesus to another son of Codrus named Androclus (Pherecydes, frag. 155); Yet another tradition told how the Ionians had originally occupied the northern part of the Peloponnese but had been expelled by Achaeans fleeing the Dorian onslaught and sought refuge in Athens, from where they had set out to colonize Asia Minor (Herodotus, 1. 145, 7. 94; Pausanias, 7. 1. 2–4). It is no doubt the diversity of these foundation accounts as much as prejudice that caused Herodotus to question the ethnic homogeneity of the Ionians, attributing their origins to an admixture of Abantes from Euboea, Minyans from Boeotian Orchomenus, Cadmeans, Dryopes, Phocians, Molossians, Arcadian Pelasgians, and Dorians from Epidaurus.

Although Athens often plays a central role in many of these 5th-century foundation accounts, there is no explicit testimony that it subscribed to a shared Ionian identity before the early 6th century BC when the Athenian statesman Solon (frag. 4) referred to Attica as "the oldest land of Ionia". The Homeric *Hymn to Apollo* implies that Delos hosted a pan-Ionian festival, possibly by the middle of the 7th century BC, while the Panionium to which Herodotus refers (1. 141–142, 148) was a league of 12 cities (Miletus, Myus, Priene, Ephesus, Colophon, Lebedus, Teus, Clazomenae, Phocaea, Samos, Chios, and Erythrae), centred on the sanctuary of Poseidon Heliconius at Cape Mycale, which was certainly functioning by *c.*600 BC and possibly even earlier.

At the level of dialect, cult, and institutions, Ionian cities shared some undoubted commonalities, though these were not always exclusive or universal. The dialects of the cities of Asia Minor and the Cyclades are the closest and are related to the dialects of Attica and Euboea, but the Ionic dialect also seems to have been spoken in the Dorian city of Halicarnassus by the 5th century BC. A number of festivals (Anthesteria, Apaturia, Boedromia, Lenaea, Plynteria, Pyanopsia, and Thargelia) appear to be characteristic of Athenian and Ionian calendars, although Herodotus (1. 147. 2) says that the Ephesians and Colophonians do not celebrate the Apaturia. Similarly, the citizen bodies of many, though not all, Ionian cities were distributed among the four Ionian "tribes" of the Hopletes, the Aigikoreis, the Geleontes, and the Argadeis.

From the end of the 7th century BC the Ionian cities of Asia Minor were subject to periodic attacks from the neighbouring Lydians, culminating in their conquest by Croesus of Lydia in the mid-6th century and then their incorporation into the Persian empire following Croesus' defeat at the hands of Cyrus the Great *c.*546 BC. Whether as a result of crippling taxation demands and autocratic abuse or simply the personal ambitions of Greek puppet-tyrants, many of the Ionian cities revolted from Persian rule in 499 BC under the leadership of Aristagoras of Miletus. With the assistance of Athens and Eretria as well as of Carians, Cypriots, and Hellespontines, the Ionians scored some early successes – including the sack of the Lydian capital Sardis – but the revolt was ultimately a failure; following a naval defeat at Lade in 494 BC where the Ionian contingent faced a Phoenician navy almost twice its size, Miletus was sacked and its inhabitants killed or enslaved. The Ionian cities passed back to Persian suzerainty until after the Persian Wars of 480–479 BC.

It may be as a consequence of the Ionians' perceived readiness to endure the rule of barbarians that Athens began to downplay its own Ionian associations: according to Herodotus (1. 143. 3), the Athenians and Euboeans avoided calling themselves Ionians because they were ashamed of the name (since *c.*506 BC much of Euboea had passed under direct or indirect Athenian control). This new attitude becomes particularly apparent after the Persian Wars when Athens began to stress its own autochthonous origins over its traditional Ionian ties, though this is perhaps prefigured as early as 508 BC when the Athenian statesman Cleisthenes replaced the old four Ionian tribes with ten new tribes named after Attic heroes. It was not, however, politically expedient for Athens to sever all ties with the Ionian cities of the Cyclades and Asia Minor – not least because Ionians constituted a majority of the cities of the Delian League who from 478/77 BC were required to pay tribute to Athens to secure protection against further Persian aggression. The solution that Athens adopted was to make slight but subtle modifications to the vocabulary of its relationship with its tributaries by which the Ionians were no longer placed on an equal footing of kinship but regarded as colonists owing their Athenian metropolis certain obligations. The dependency of this relationship was asserted at the quadrennial Great Panathenaea at which the cities of Ionia were instructed to provide a cow and a panoply to be displayed during the festival. At the same time, Athens sought to bolster a sense of common identity among its Ionian allies by promoting cults to Athena, Ion, and the four eponymous Ionian heroes on Samos and by reorganizing the pan-Ionian festival on Delos (Thucydides, 3. 104. 2). This exploitation of Ionian identity for political purposes became even more marked in the course of the Peloponnesian War, partly in opposition to the claims to shared Dorian origins that Sparta and its allies were proclaiming. Thucydides (3. 86. 3, 6. 6. 1) notes that early Athenian intervention in Sicily in 427 BC and again on the occasion of the later, disastrous Sicilian expedition of 415–413 BC was justified on the specious pretext of shared Ionian kinship.

Appeals to a common Ionian identity began to subside following the Peloponnesian War. Athens was now confident in its autochthonous origins, the Ionian cities of Sicily had begun subscribing to a broader "Siceliot" identity, and the Ionian cities of Asia Minor were effectively distanced from their Ionian kinsmen to the west by the reincorporation within the Persian empire – ratified officially under the terms of the King's Peace of 387/86 BC. The Panionium itself continued to function – at some point in the early years of the Peloponnesian War it had been transferred to Ephesus on the grounds of safety but then restored in the early 4th century to Cape Mycale where it is still attested in the Roman imperial period (Strabo, 14. 20. 1)–and throughout the Hellenistic and Roman periods Panionia festivals were celebrated in many of the cities in Asia Minor.

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See also **Dialects; Hellenes**

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IRON

Iron differs from other metals used in antiquity in almost every way. The ores are widespread and abundant, but smelting requires much higher temperatures than other metals. Most smelted iron is inferior to bronze, but steel, an alloy of iron and carbon, has properties far in advance of other metals used in antiquity. However, the qualities of steel can only be brought about under carefully controlled conditions of temperature and chemical environment. For these reasons iron replaced bronze very gradually: although the first smelted iron dates from the 3rd millennium BC, iron only came into general use in the Aegean region around 1200 BC. A contributing factor may have been a shortage of tin for making bronze.

Iron is a common element in the earth and rich ores were readily available in antiquity. There were four principal types – metallic iron in meteorites, primary ore in rocks, iron-rich sands, and iron-rich fossil soils (laterites).

Natural metallic iron only occurs in meteorites and very rare terrestrial rocks not found in the Aegean. Meteorites were certainly known in the ancient Greek world: Anaxagoras of Clazomenae examined a meteorite and concluded that heavenly bodies were made of the same material as the earth. They were also venerated at Pessinus (Asia Minor) and possibly elsewhere, but no authenticated meteorites survive from this period. It has been suggested that some early iron objects were made of meteoritic iron on the basis of their chemical composition, primarily their high nickel content. However, such analyses may be suspect as it is only the oxidized surface that is commonly analysed, which is enriched in nickel. In addition, some iron deposits contain substantial quantities of nickel that were sometimes incorporated into the final metal. Finally, most meteoritic iron is difficult to work, unsuitable for making tools, and only available in small quantities.

Many of the primary ores exploited in Greece were precipitated where hot watery fluids released during the crystallization of granite reacted with limestone or marble. Such fluids also carried other metals that were deposited under different conditions. Seriphos was the main source of such ores – the amount of slag from smelting indicates that seven million tonnes of iron were mined here from antiquity onwards. Two different ores were extracted: those at Playa near the centre of the island were deposited at high temperatures (500° to 600°C) and are rich in magnetite. The limonite iron deposits of Mega Livadi were formed at lower temperatures away from the granite. Similar deposits were exploited near Neapolis in the Peloponnese.

One of the largest underground palaeolithic mines in Europe was on Thasos. These deposits were initially exploited for ochre, a red pigment used for cult purposes. From the 9th century BC onwards extraction of iron ore for the production of metal became important from these and other deposits on the island. Sources were limonite/haematite ores associated with silver and gold ores formed in dolomite. Beach sands rich in magnetite and ilmenite (iron-titanium oxide) were also exploited here, and probably elsewhere in the Aegean.

Laterites are ancient ''soils'' rich in the iron mineral haematite that were formed during Early Cretaceous time (about 90 million years ago) when a tropical climate prevailed in Greece. Intense weathering of the serpentinite bedrock removed most of the chemical elements in solution, leaving behind a layer on the surface up to 10 m thick enriched in iron and nickel. In some areas the laterite was eroded and the sediments transported by rivers to be redeposited on top of Jurassic limestones. At the end of the Cretaceous period the sea invaded the area and limestone was deposited on top of both types of laterite.

Laterites were exploited for iron in Boeotia and Euboea. Pliny mentions an occurrence of iron ore near Hyettos, about 8 km north of Lake Copais. The deposits occur in the mountains northeast of Chalcis, near the Aegean coast (the range that includes Mount Dirphys), and on the adjacent mainland, in northeast Boeotia, between Lake Copais and the north Euboean Gulf. They can be teen as long, thin, meandering lines of dark-red rock between paler limestones or greenish serpentinites. Some of the same deposits have been exploited recently for nickel. Iron produced from these deposits under certain conditions of smelting contained some nickel.

In antiquity iron was used for statues, tools, utensils, and various decorative purposes. It was usually smelted and worked in the solid state, without melting. Iron ore and charcoal were packed into small cylindrical furnaces and fired to over 1000°C. Towards the base of the furnace some of the iron ore was reduced to tiny flakes of metallic iron by the charcoal. Further up in the furnace some of the iron ore combined with silica in the ore or parts of the furnace to form a molten slag dominated by iron silicates that prevented the metallic iron beneath from reoxidizing. The mass of metallic iron thus formed is called a

bloom and is very pure. At the end of the firing the bloom was lifted out and the processes started again. The bloom contained much slag that had to be removed by hammering at orange heat (smithing) before the metal could be used. Some slag was always left in the finished product but this did not diminish its properties significantly and enabled pieces to be welded by hammering. Iron produced by this process was a soft metal that needed to be converted to steel by the addition of carbon before the metal could realize its full potential. To make steel suitable for weapons, smithed iron was packed in charcoal dust and sealed in clay containers to prevent oxidation. It was then heated to red heat for several hours to days. This mass of raw steel was worked to form the desired object. The final step necessary to develop the full strength of the steel was tempering. In this process the finished object was reheated to a special temperature and cooled at a controlled rate. With the precision necessary for all these steps it is no wonder that successful early smiths were so highly regarded.

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See also **Geography; Geology; Metalwork**

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ISOCRATES *c.*436–338 BC

Orator

Isocrates was an enormously influential Athenian rhetorician. Much is to be gained in understanding his views if it is noted that his life stretched from the time of Pericles to the victory of Philip of Macedon over the free Greeks at Chaeronea; he was first and foremost an ardent patriot of his city, yet he was willing to imagine his polis working as an ally with the newly emerging strongmen of the Greek world. Conservative in outlook, he was also a powerful spokesman for Panhellenism – however, a Panhellenism that always put his native city first. His work, chiefly long epideictic or "display" orations that were not in fact orally delivered (he did not possess a strong voice), was read and cited well into the Byzantine period; his style of writing, itself reflecting the influence of his teacher, the Sophist Gorgias, was widely admired and imitated as a model of Attic prose. He was also an important teacher of composition for orators and historians: many of his "students" were themselves to be significant figures in the field of letters.

His earliest extant works are six speeches that he wrote for others to deliver in courts of law: like his slightly older contemporary Lysias, he was a *logopoios* in his early years, after his family's wealth had been destroyed in the Peloponnesian War. He soon gave up this career, and turned to producing large-scale public orations and other essays. He wrote two encomiastic treatises, the *Helen* and the *Busiris*, much in the tradition of his teacher Gorgias. His *Evagoras*, an oration addressed to that Cypriot king's son and successor Nicocles, is one of the earliest pieces of biography in Greek literature, alongside Xenophon's *Agesilaus*. In a similar vein, he also wrote a number of open letters, primarily to kings in the Greek world.

Isocrates' main achievement, however, lay in his long and elaborate epideictic speeches. The *Panegyricus* (*c.*380 BC) is a Panhellenic speech advocating an all-Greek expedition against Persia, and at the same time defending Athens' imperial past and attacking Sparta. The *De Pace* (On the Peace, 355 BC) represents something of a change in views: it urges Athens to make peace with its rebellious allies of the Second Athenian Confederation (founded 378 BC) and recommends that the Athenians "make lasting peace with all the world", including Persia. A return to the views of the *Panegyricus* is represented by the *Philippus* (346 BC), although now the standard of Panhellenism is to be held by Philip of Macedon, working together with the Athenians at the head of an all-Greek coalition.

Some of his other great orations tell us more about Isocrates' life, political views, and influence. The *Areopagiticus*, written at about the same time as the *De Pace*, is a criticism of moral decay at Athens and a plea for a return to the limited democracy of Solon and Cleisthenes. In *Against the Sophists*, written early in his career (*c.*390 BC), Isocrates tried to differentiate himself from other teachers of rhetoric. The *Panathenaicus* (339 BC) is the last work he wrote and is a summation and defence of his career. Perhaps the most important statement of his views on rhetoric is contained in his *Antidosis*, written in 354/53 BC. It has many points in common with his earlier *Against the Sophists*; further, it contains extracts from his own earlier speeches, and may even allude at points to the famous defence of Socrates. It is in this speech that Isocrates states quite plainly that people can become better and more worthy if they become desirous of speaking well. Isocrates is reputed to have taught the orators Isaeus and Hyperides, and the historians Androtion, Ephorus, and Theopompus, though many today would want to modify this claim, emphasizing Isocrates' influence on others, rather than any actual instruction he may have given.

Isocrates' belief that rhetoric is crucial in the education of leaders became a central tenet of antiquity. For Cicero he was "the father of eloquence" and the "teacher of all orators" (*De Oratore*, 2. 10. 94). It is hardly surprising, then, that his work was influential throughout the Byzantine period. Isocrates was an important model for the Church fathers Basil and Gregory of Nazianzus. Further, he was a central figure for Byzantine educational canons, widely regarded as a model of Attic prose style and a source of moral *dicta*. The *Suda* relies heavily on his work;

Manuel II Palaiologos mines him for *sententiae*. Further, his work helped to define the Byzantine ideal of Athens: it is significant that John Malalas groups him (*Chronicle* 214) with Pericles and Thucydides, as opposed to 4th-century BC figures. Despite the lack of interest in the first printed edition of his work (Aldus Manutius, Venice, 1493), he became a central figure in the modern period for defining the educational methods of cultural humanism: Werner Jaeger (*Paideia*, 3. 46) has noted that he is rightfully called the "father of humanistic culture".

JOHN DILLERY

See also **Rhetoric**

Biography

Born *c.*436 BC in Athens, Isocrates studied under the sophists Prodicus and Gorgias. In the 390s he wrote speeches for others to deliver in court. But soon he changed to producing large-scale orations and teaching rhetoric to others. His pupils are said to have included the general Timotheus, the orators Isaeus and Hyperides, and the historians Androtion, Ephorus, and Theopompus. His writings were much admired for their purity of style. He starved himself to death in 338 BC.

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ITALY

The Italian peninsula in southern Europe in which the Roman empire later emerged has been exposed to interaction with Greek civilization throughout its recorded history. Many tribes made up the population of the Italian peninsula, which is one of the reasons why the unification under Rome was considered to be a great achievement. Evidence of Minoan and Mycenaean trade has been found in many places, particularly in the southern part of the peninsula and Sicily. There is a history of political, cultural, and religious relations, and intricate reciprocity of influence from one side to the other. Relations with the Greek world were first established by the Etruscans, located mainly in northern Italy. To give one simple example, the Latin alphabet is believed to have been borrowed by the Romans from the Etruscans, who in their turn had taken it from the Greeks *c.*700 BC. Etruscan art, particularly sculpture and painting, as well as architecture, largely followed the development of Greek art, although it was significantly different. Etruscan culture influenced early Rome in its political organization and religious cults. Whether originating from the East (according to Herodotus, who believed that they came from Lydia), or indigenous Italian (as Dionysius of Halicarnassus thought them to be), their expansion depended much on trade. Through trade they came into contact with many people. Contact with the Greeks was intensified after Greek colonization.

In the period from 800 BC to 500 BC, traders from Greece reached south Italy and Sicily. Mostly for reasons of overpopulation and unfair distribution of land, as well as the need for expansion of trade, Greeks began to colonize places abroad that could offer rich agricultural production and defensible harbours. The use of the terms "colonization" and "colony" for this new kind of settlement is extremely misleading since many of the modern connotations attached to them are not applicable. With the exception of Athens and Thebes, most Greek city states seized every opportunity to expand, particularly in south Italy and Sicily where the climate and agricultural possibilities are very similar to those in mainland Greece. The first Greek settlement (*c.*750 BC) was at Cyme, mostly known by its Latin name Cumae, founded by the cities of Chalcis, Eretria, and Cyme in Asia Minor. Sparta founded only one colony, Taras, in south Italy in 706. Corinth established Syracuse in Sicily in 733 BC. Naxos founded Naxos in Sicily, Chalcis founded Leontini and Catane, Megara founded Megara Hyblaea. Chalcis later founded Rhegion (modern Reggio) in Calabria. By the 5th century BC, south Italy (but not Sicily) was referred to as "Magna Graecia". Many of the cities that were founded in Archaic and Classical times still bear traces of their Greek past, such as Taras (Latin Tarentum), Syracuse, Poseidonia (Latin Paestum), Tauromenium (Latin Taormina), Acragas (Latin Agrigentum), or Gela. A colony was a separate polis. Although it was independent of the home state, it maintained real links with the mother city. The mother city was often asked to protect the colony when in danger and the Sicilian expedition in the Peloponnesian War is an example of the kind of relations and tensions that prevailed between mother city and colonies.

The Greeks often came into contention with the people of the Italian peninsula. The Etruscans were defeated by the Greeks at Cumae in 474 BC. Meanwhile, until the 3rd century BC Rome was expanding rapidly in the Italian peninsula. The Latin tribes, the Oscans, and the Samnites soon came under Roman control. There remained only the Greek city states of the south. In the 3rd century the Greeks of Taras, alarmed by Roman expansion, asked for help from Pyrrhus, king of Epirus. He defeated the Romans at Heraclea and Asculum (280 BC and 279 BC) but lost the battle at Beneventum in 275. After that the Romans were kept busy in their wars against the Carthaginians from 264 to 146 BC. They were, however, also drawn into the turbulent affairs of the Hellenistic world – in the Aegean against

King Philip V (221–187), and further east against King Antiochus III (223–187). In a series of Macedonian wars enmities among the various Greek city states and leagues also played a significant role. In 197 BC Philip V was defeated and Greece was declared free after the battle of Cynoscephalae. There was now a precedent for Roman intervention in Greek and Hellenistic affairs. King Perseus, the son of Philip V, was no more effective than his father against the Romans. Thus in 146 BC Greece became a Roman province; and in 133 BC Pergamum was bequeathed to Rome by King Eumenes III and also became a province.

Besides action at the military and political levels, it was with the Roman conquest of the Hellenistic world that Hellenic, or rather Hellenistic, culture permeated many aspects of Roman life. An attempt was slowly made to create a Roman literary culture according to the Greek ideal. Already from the time of the Carthaginian wars attempts had been made by Livius Andronicus to translate Homeric epic poetry into Latin. Plautus wrote comedies in the style of Menander. Accius and Pacuvius also wrote comedies and tragedies. Besides the adaptation of many literary genres that had flourished in the Greek world the Romans tried to explore unique Roman ideals in literature and philosophy, that would be canonized later in the Golden Age of Augustus. Cato the Elder reproached the Romans for imitating the Greek way of life. In the realm of religion many cults of the Greek city states entered the Roman pantheon, particularly that of Dionysus. Greek deities had already acquired their position in the Roman pantheon and been given a Latin name. In art and architecture, the meeting of the Greeks and Romans became even more obvious. Many models were copied. Greek educational principles were also transmitted to Rome. Later, both in the republic and in the empire, many Romans' went to Athens to pursue their studies, especially in philosophy and rhetoric. In the philosophical works of Cicero it became obvious how Hellenistic philosophy acquired a Roman setting and terminology. Earlier poets, like Lucretius or Catullus, as well as the poets of the Augustan age, drew context and forms from the early Greek literary productions as well as from Hellenistic culture, transforming them into completely new material. Prose writers such as Livy also inherited some elements from their Greek predecessors. On the other hand; there were Greek authors, such as Dionysius of Halicarnassus, Diodorus Siculus, and Polybius, who wrote in Greek about Roman matters. After the unification of Italy under the Roman empire, the meaning and identity of the word Roman was established. But there were still Romans who wrote in Greek, such as the emperor Marcus Aurelius in the 2nd century AD. Many scholars have seen in this period a decline of the Classical ideal, whereas in fact it bears witness to the emergence of new, well-defined tendencies in literature, philosophy, religion, and art.

The spread of Christianity soon reshaped the tensions in the Mediterranean world. The interaction between Greek and Italian was acquiring a new dimension as the Christian religion grew stronger. At first, the new debate of Christian versus pagan appeared in contemporary literary and rhetorical writings, whereas later, once Christianity was established, the debate centred on the Greek versus the Latin rite in ecclesiastical matters. With the establishment of Constantinople as the "new Rome" the polarity between East and West entered a new phase.

ANDROMACHE KARANIKA-DIMAROGONA

See also **Colonization; Etruscans; Magna Graecia; Peloponnesian War; Rome**

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IVORY

Ivory (*elephas*), properly speaking, is the dentine of elephant tusks, and it is from this material that the animal takes its name. The term also commonly denotes material obtained from hippopotamus, sperm whale, and walrus tusks, which, like all tusks, are teeth of continuous growth. There is no evidence that the last two animals supplied any of the ivory employed in the eastern Mediterranean, but elephant and hippopotamus ivory was imported to Greece, directly or indirectly, from the natural habitats of those creatures, i.e. Africa, the Levant, and India. Mammoth ivory, while available to Greeks in small quantities locally as well as from abroad, appears to have been rarely, if ever, used for carving, although a few chance finds may have served as trophies in antiquity, for example, the tusks of the legendary Caledonian boar. Actual boars' tusks adorned the helmets of elite warriors in the Mycenaean period and are mentioned in the Homeric epics.

Whatever its source, ivory was highly prized, serving as a symbol of wealth, status, and prestige from the Bronze Age, through the Classical and Byzantine periods, into the modern era on account of its exotic origins, aesthetic quality, and reputed magical properties (as in the myths of Pelops and Pygmalion). Its smooth, creamy-white surface, warm lustre, density, and flexibility add to its appeal, and its physical characteristics allow it to be worked by a variety of techniques: it can be carved in the round or relief, cut into veneers or inlays, turned on a lathe, and even moulded. Most ivories were ultimately polished, painted, and gilded. A multipurpose commodity, ivory was employed in all periods in the manufacture of statues, reliefs, furniture components, appliqués, pyxides, handle attachments, pinheads, brooches, bracelets, combs and other toilet articles, seals, game pieces, and amulets.

The beauty and value of ivory are recognized in the earnest Greek texts, as in the Old Testament and earlier Near Eastern documents. The Mycenaean Linear B tablets inventory ivory weapons, chariots, and furniture, and similar objects mentioned in the *Iliad* and *Odyssey* symbolize royal affluence. That ivory-carving flourished in Minoan and Mycenaean society is also evidenced by numerous physical survivals from Bronze Age sites, including raw ivory from Zakros and the Ulu Burun shipwreck, and workshop debris from Knossos, Mycenae, Pylos, and Thebes. Reliefs intended for appliqué are the most common finds, but excavators have also recovered numerous

other objects, among the finest of which are the fragments of a 50-cm-tall composite figure of a standing youth excavated at Palaikastro in eastern Crete (Siteia Museum). The exquisite carving of anatomical details of the Palaikastro youth far surpasses that of similar figures in all other media, underscoring not only the superior qualities of dense, fine-grained ivory as a material for sculpture, bat also the fact that precious imported tusks were regularly entrusted to the most experienced craftsmen, who, presumably, had been trained in wood-carving, an art now largely lost. Blackened by fire, broken, and much restored, the Palaikastro statuette, like other unequivocally genuine Minoan ivory statuettes excavated at Knossos (Herakleion Museum), originally consisted of numerous individually carved components joined by complex systems of dowels and mortises. The Palaikastro figure also had rock-crystal eyes, stone hair, wooden nipples, and a golden loin cloth and sandals. This statue appears to have been painted, as were ivories in the Classical and Byzantine periods, although such ornamentation is often lost. (Technical, stylistic, and iconographic anomalies indicate that a number of ''Minoan'' ivory statuettes in collections outside Greece, inevitably said to be from Knossos, are modern forgeries.)

Ivory production in Greece naturally declined sharply during the so-called Dark Age of the late 2nd to early 1st millennium BC, but the material reappears in the Geometric and Orientalizing periods along with motifs and perhaps even craftsmen from the Levant; for 8th-, 7th-, and 6th-century carved ivories recovered from Crete, Athens, Ephesus, Samos, Laconia, Delphi, Perachora, and elsewhere, though sometimes exhibiting local stylistic features, closely parallel items that have been excavated in great quantity in the ancient Near East, particularly at Nimrud.

Like their Bronze Age ancestors, wealthy Greeks of the Archaic, Classical, and Hellenistic periods employed ivory, often combining it with other materials, to furnish their homes and gain the favour of the gods. Luxury furniture is best known from depictions on painted pottery and stone reliefs, but ancient texts, especially the inventories of the temples on the Athenian Acropolis and Delos, fill out the picture. Tombs have yielded fragments of ivory furnishings, but more have been recovered from sanctuaries. Indeed, many surviving ivory statuettes that are often presented as free-standing figures preserve cuttings in their heads or backs that indicate their original function as components of furniture, toilet articles, or even musical instruments. Most renowned in antiquity, however, were free-standing chryselephantine statues, composite works of gold and ivory. Produced at a variety of scales, these were assembled from individually carved ivory faces, hands, and feet attached to wooden armatures that were subsequently sheathed in gold. The hair of such figures, too, was rendered in gold, and these statues, gleaming and guttering in the half-light of temples or treasury buildings presented stunning images of the gods. Most such works are lost and known only from later literary sources. Pausanias, for example, saw a number of early figures ascribed to pupils of the legendary craftsman Daedalus, as well as the gold, ivory, and cedarwood chest of Cypselus collected in the Heraion at Olympia. These objects do not survive, but a cache of votives from Delphi of the 6th century BC illustrates the technique and provides a notion of the appearance of such images, though they were burned in antiquity and are now much restored.

Ancient authors explicitly state that the expense of ivory, along with its warm and lustrous colour, so closely approximating unblemished flesh, made it fitting for representations of divinities, and in the Classical period a combination of political and technological developments contributed to the unprecedented use of ivory in colossal statuary. The Athenian decision to erect a monumental statue of Athena (447–438 BC) inside the Parthenon was the result of competitive emulation. Monumental statues had long been erected in stone and bronze, but Phidias combined techniques of furniture-veneering, bronze-casting, and ship-building to create a gigantic composite work in gold and ivory approximately 12.75 m tall. Literary and physical evidence suggests that the Athenian sculptor adapted techniques of unscrolling tusks into thin sheets of ivory that were subsequently softened in acidic baths and then moulded in (or over) clay or wooden forms. This ivory skin, like the hammered gold that formed the drapery (weighing approximately 1137 kg in the case of the *Athena Parthenos*), was then affixed to a massive armature built around a wooden beam, the cutting for which survives in the floor of the temple. The resultant image of the ivory-skinned *Athena Parthenos* robed in golden garments ignited a trend throughout Greece as various city states commissioned similar statues of their own patron deities to demonstrate their piety, wealth, and power. Phidias' second essay in the genre, the *Zeus* at Olympia, came to be ranked among the seven wonders of the ancient world. Praised by numerous ancient authors, it was considered to have added something to traditional religion, and Phidias himself was thought to have travelled to Olympus, so accurately did he capture the essence of the god. This statue, like the *Parthenos*, is lost, known only from ancient descriptions and representations in other media. The workshop in which it was produced, however, was identified by Pausanias, and has been excavated: ivory wasters, bone chisels, terracotta moulds for glass inlays, and even a cup inscribed with Phidias' name are among the finds displayed in the Olympia Museum.

Phidias reputedly made additional chryselephantine statues (and pseudo-chryselephantine ones consisting of marble and gilded wood) at Elis, Plataea, and Pellene, and ancient sources report that similar works were produced at Argos, Megara, Elis, Athens, Calydon, Delos, and Epidaurus in the late 5th and 4th centuries BC by Polyclitus, Theocosmos, Colotes, Alcamenes, Menaechmus and Soidas, and Thrasymedes. Previously reserved for representations of the gods, ivory statues eventually came to be employed by mortal rulers seeking their own glorification, beginning with Philip of Macedon and his son Alexander, who erected a chryselephantine family group by Leochares in the Philippeion at Olympia, not far from Phidias' *Zeus*. Later ivory portraits are also mentioned by ancient authors. Special provisions were made for the maintenance of the largest statues: at Athens and Olympia reflecting pools of water and oil, respectively, were considered beneficial to the ivory, and special ''polishers'' (or ''descendants of Phidias'') looked after Phidias' statues.

Meanwhile, ivory continued to be employed for the adornment of the many sumptuous objects mentioned above, as well as for the decoration of the doors and ceilings of temples, and even the panelled rooms of the luxury barges of Hellenistic kings. Best preserved are the composite figurines that decorated couches recovered from Macedonian tombs (Thessalonica Museum).

The monetary value of ivory, which was worth approximately one quarter its weight in silver in the 4th century BC according to building inscriptions at Delphi, naturally fluctuated according to its availability. The eastern conquests of Alexander increased supply, and the vast accumulations of the material by his successors are demonstrated by the thousands of tusks recorded to have been displayed in later Roman triumphs. Some Greek ivory statues were eventually carried off to Rome, and the chryselephantine technique continued to be practised under Roman rule: at Athens the emperor Hadrian commissioned another colossal *Zeus* for the Olympieion, and Herodes Atticus dedicated a *Tyche* in that city as well a *Poseidon-Amphitrite* group at Isthmia.

The fate of most of the great Classical ivory statues remains uncertain. Ancient sources record almost 200 such works in Italy, Greece, and the eastern Mediterranean. Not one of these survives, but components of dozens of others have been recovered. Many, depicting pagan gods, were no doubt destroyed by Christian iconoclasts. Phidias' *Zeus Olympios* is said to have been carried off to Constantinople, where it appeared in a Christianizing allegorical programme in the Palace of Lausos, providing a model for the bearded image of Christ Pantokrator before being destroyed by fire in the late 5th century AD. On a considerably smaller scale, ivory continued to be a popular medium for works in diverse genres in the Byzantine period. That its price had fallen considerably from Classical times is clear from the Edict of Diocletian, which lists it at one-fortieth the value of silver.

From the 4th to the 6th centuries statuettes, caskets, plaques, furniture, and other items decorated in classicizing styles with motifs from pagan mythology as well as Christian iconography were produced in Egypt, presumably at Alexandria, as well as Constantinople. Although scholars debate the precise origins of many late Antique and Byzantine ivories, an edict of AD 337 lists ivory workers among artisans exempted from civil obligations so that they might improve their craft and instruct their children, indicating how techniques were transmitted. A slightly later edict restricts all but ordinary consuls from distributing ivory diptychs, suggesting the widespread manufacture of these ceremonial gifts, distributed to celebrate the donor's attainment of the highest magistracy. Many of these socially and politically significant objects survive, having later entered church treasuries on account of their valuable material and the high quality of craftsmanship.

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See also **Furniture**

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JEWELLERY

The earliest evidence in Greece for jewellery consists of a few small shells pierced with suspension holes that survive from the Palaeolithic period. By the Neolithic period (*c.*6800–3000 BC), however, jewellery making had begun in earnest. Consisting of valuable objects of personal adornment that may have originally served as protective amulets, jewellery during this early time indicated the wealth and social status of its owners. Common materials for jewellery in the Neolithic period included animal bone, shell, clay, stone, bronze, and gold. Precious stones were virtually unknown at this time, and silver was rare as well. Typical forms included highly stylized anthropomorphic pendants, beads for necklaces, simple finger rings, bracelets, pins, and mouthpieces. The gold and bronze jewellery from the Neolithic period is invariably hammered and cut into sheets. The discovery of precious gold and bronze jewellery in Neolithic cemeteries throughout Greece suggests the early emergence of a stratified society in this region.

During the Bronze Age in Greece the art of jewellery-making flourished under influence from the Near East and from Egypt, while also reflecting the unique ideas and inspiration of local craftsmen. Most pieces from this period were discovered in wealthy tombs, where they symbolized authority and prestige. From the Early Bronze Age (*c.*3200–2000 BC) several fine examples of bronze and silver jewellery survive from the Cyclades, including an outstanding silver diadem from Amorgos, with the top cut in a zigzag pattern, which is now on display in the National Archaeological Museum in Athens. Pendants and necklaces of bone, shell, and semiprecious or ordinary stone were common in the Cyclades. Some gold and silver diadems, earrings, pendants, and pins are also known from a few sites on the Greek mainland during the Early Bronze Age. Also important is a rich collection of jewellery, known as the "Thyreatis Treasure", in the Staatliche Museen in Berlin, which dates from *c.*2200 BC and includes an elaborate gold necklace with wedge-shaped pendants. It is thought to come from the Thyreatis in the Peloponnese. The best-known collections of gold jewellery of the Early Bronze Age, however, come from the northeast Aegean, especially from the site of Poliochni on Lemnos and from Troy. The hair spirals, necklaces, pins, and bracelets from these sites are especially impressive for their more advanced techniques, imported from Anatolia, which include filigree and granulation. Spectacular gold jewellery was also being made on Crete in this early period. The most famous examples from the Early Minoan tombs at Mochlos, now on display in the Herakleion Museum, include diadems made of gold sheet with repoussé decoration and fine chains of gold wire, as well as pins, pendants, beads, and bracelets.

During the Middle Bronze Age (*c.*2000–1600 BC) important advances in the technique of goldsmithing took place on Minoan Crete and resulted in jewellery of great artistic skill and sensitivity. One remarkable example that uses the filigree and granulation techniques with great effect is the famous gold pendant of two conjoined bees or wasps with a honeycomb (dated *c.*1700 BC) that was discovered in the Khrysolakkos cemetery at Mallia and is now on display in the Herakleion Museum. Other equally elaborate pendants of gold combined with semiprecious stones belong to the well-known "Aegina Treasure", discovered in the form of tomb robbers' loot and now in the British Museum in London. This impressive treasure, dated to the 17th century BC, also includes beads, finger rings, earrings, and diadems of gold as well as gold cutouts in the form of discs with dotted rosettes, which would have been sewn on to garments.

The most remarkable jewellery of the Late Bronze Age (*c.*1600–1100 BC) comes from the royal shaft graves in the two grave circles at Mycenae, a citadel rightly described by Homer as "rich in gold". Dating mainly from the 16th century BC, the abundant gold objects from these tombs betray the powerful influence of the Minoan artistic tradition. Indeed, some of them are pure Minoan imports, while others may have been designed by Minoan craftsmen specifically for the Mycenaean market or by Mycenaean craftsmen working from Minoan models. This incredible jewellery, proudly displayed today in the National Archaeological Museum in Athens, includes fine gold diadems (for both sexes) with repoussé decoration; gold cutouts and roundels with repoussé octopuses, butterflies, spirals, and other natural and curvilinear motifs used to adorn luxurious clothing; as well as elaborate pins, earrings, bracelets, armlets, belts, signet-rings, and necklaces of gold, amber, and semiprecious stones.

During the zenith of the Mycenaean civilization (15th–13th centuries BC) the type of jewellery produced throughout Greece (with the exception of Crete) is different in many important respects from its forerunners in the shaft graves and elsewhere. For example, certain types of jewellery, including diadems, pins, and earrings, were no longer popular. Instead, necklaces with relief beads and pendants are very frequent. These beads and pendants are often in the form of stylized floral and marine motifs known from traditional Minoan iconography. The gold beads and pendants were made from gold sheet hammered into stone moulds, filled with magnetite sand, and often decorated with granulation, enamel (introduced *c.*1425 BC), grooves, and ribs. Moulded glass paste and faience beads were also used with increasing frequency as well as beads of semiprecious stones in a variety of shapes.

After the collapse of the Mycenaean world around 1100 BC, very little jewellery seems to have been produced in Greece for about 200 years. What little has been discovered from this period is of the simplest form, mainly hair spirals, as well as basic rings, bracelets, and pins, generally made of bronze, occasionally of iron, and rarely of gold that was probably acquired by melting down precious metal hoards amassed from Bronze Age tombs. Between 900 and 600 BC, however, Greek contacts with the more prosperous Near East were renewed and the art of jewellery making was revived, initially in Athens, Lefkandi in Euboea, Corinth, and Knossos, and later throughout the entire Greek world. This early Iron Age jewellery exhibits the reintroduction of sophisticated techniques (e.g. repoussé, filigree, granulation, engraving, and inlaying with stone, glass, and amber), as well as the introduction of newer techniques such as the making of chains and the casting of gold. Forms and motifs of Minoan-Mycenaean jewellery were also reintroduced, though the occasional rediscovered object demonstrates the influence of the arts of Phoenicia and Asia Minor. New Eastern motifs appeared as well, including lions, sphinxes, griffins, and the "Mistress of the Animals", who later became identified with the Greek goddess Artemis. Among the most outstanding objects from this period is a pair of elaborate gold earrings with pendant pomegranates (*c.*850 BC) that were found in a rich woman's grave on the northwest slope of the Areopagus in Athens and are now on display in the Agora Museum. These earrings were probably made by an immigrant Phoenician artisan who set up a workshop in Athens and passed on his skill to local craftsmen.

Very little jewellery of the Archaic period survives from Greece proper, perhaps because of a shortage of gold that led to jewellery making in less durable materials such as bronze and silver. Spectacular gold jewellery does survive, however, from Cyprus, south Russia, and south Italy, suggesting that Greek goldsmiths were working for foreign customers. After the Persian Wars gold was more common in Greece, and although much of this was reserved for religious uses (e.g. chryselephantine statues), impressive jewellery was also produced. Greek jewellery of the Classical period continues Archaic types and decoration but the orientalizing figures and creatures are generally replaced with floral and geometric motifs (e.g. acorn- and vase-shaped pendants), while mythological themes and figures, such as Aphrodite and Eros, also become more popular. Rich decorative techniques such as granulation and filigree begin to decline and the simple sculptural forms of the gold are increasingly emphasized. What results is jewellery that is characterized by a more typically Hellenic sense of balance and restraint. Popular forms include diadems, earrings, necklaces, bracelets, and finger rings. Most impressive, however, are the new gold wreaths, with the leaves and fruit of oak, myrtle, olive, and laurel trees, which were received as prizes; worn in religious ceremonies, processions, and banquets; dedicated in sanctuaries; and buried in private tombs as signs of prestige and victory. Two such golden wreaths, one of oak, the other of myrtle, were found in royal Tomb II at Vergina, which dates from the late 4th century BC.

The Hellenistic period is arguably the greatest age of Greek jewellery. There is much surviving material because, for the first time since the Bronze Age, gold was very plentiful in Greece and Macedonia as a result of Philip II's annexation of the gold mines in the area around Mount Pangaeum in Thrace and the dissemination of captured Persian treasures following the eastern campaigns of Alexander the Great. The popular forms of jewellery in this period remained essentially the same with the addition of animal- or human-headed hoop earrings, necklaces with chains terminating in lion heads, necklaces formed of straps with pendant buds or spearheads, necklaces with linked rather than threaded beads, and medallions from the tops of ornamental hairnets that are decorated with high-relief heads of various Greek deities. Most remarkable, however, are the elaborate gold diadems discovered in wealthy tombs throughout the Greek world, which are most often decorated with the new central motif of the Heracles knot (a reef or square knot). This motif had an amuletic purpose as well as a decorative one, was associated with marriage and rites of passage in general, and, more specifically, was a symbol of Alexander the Great that evoked the idea of his kinship with the gods. One of the most elaborate examples of this type of diadem, dating from the 2nd century BC, was found in Thessaly and can be seen today in the Benaki Museum in Athens. The centre of this piece is a richly decorated Heracles knot inlaid with garnets. This decorative use of semiprecious stones as well as coloured glass and enamel was also an important innovation of the Hellenistic period that introduced polychromy into the design of Greek jewellery, thereby transforming its appearance.

During the Roman imperial period the main types of Greek jewellery were continued while their often complex designs incorporating naturalistic elements were gradually replaced with simpler compositions, including semiprecious and precious stones as well as stylized, curvilinear motifs. In the early Byzantine period this more abstract style developed into something quite delicate and refined, reflecting the well-attested Byzantine taste for expensive and elaborate jewels. The Byzantines were also well supplied, through domestic sources and trade, with gold, ivory, precious stones, and pearls, which were especially popular. Jewellery, meant to convey wealth and status, was produced for all members of the hierarchical Byzantine society. However, gold jewellery with precious stones was generally restricted to the court and to the Church, while poorer members of society might adorn themselves with plain, undecorated finger rings, bracelets, earrings, and buckles made of bronze, glass, brass, or silver. Rich court officials had beautiful signet rings characteristically decorated with complex monograms as well as elaborately worked sashes of office studded with precious stones.

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See also **Enamel; Glass; Gold; Ivory; Metalwork; Silver**

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JEWS

The Jewish encounter with Hellenic culture has been a continuing phenomenon for the past three millennia. This essay is meant to stimulate new approaches to this encounter from the perspective of Jewish influence on Hellenism. It is with the intellectual fusion of these two unique cultures during the Hellenistic period that the foundations for modern society were firmly laid. This essay will note the main points of the Hellenic–Judaic helix through two major periods (Hellenistic and Byzantine), and residual influence in the modern period. There will be a brief discussion of the origins of the Hebrew–Hellenic encounter during the biblical period from about 1300 to 300 BC.

The contest between the Aegean migration following the Trojan War and the Israelite survivors of Egyptian bondage lasted throughout the 1st millennium BC: from the period of the Judges (12th–11th centuries) through to the Maccabean period (2nd–1st centuries). During this millennium the fusion had already begun: King David married an Aegean – Ma'akhah (perhaps Maxe/a), the daughter of Talmi (Ptolemaeos), tyrant (*seren*) of Geshur, and perhaps Eglah (better Aigle/a), and his mercenary corps was drawn from Philistines and Cretans. Thus the beginning of mutual influence dates to the first encounters between Hebrew and Hellene in Israel. Compare too the legends in the Book of Judges (compiled late 8th century BC: specifically the parallels between Jephthah's daughter and Iphigeneia, Samson and Heracles, etc.). Greek mythology recalls the Palestinian milieu while archaeology has uncovered the continuity of the Aegean diaspora in Israel throughout the late Judaean monarchy and the period of the Persian empire. The brief expansion of Hellenism in Israel under the influence of the Ptolemaic and Seleucid kingdoms was reversed by the upsurge of Maccabean nationalism and transmuted later by Hellenized Hasmoneans. It was only with the establishment of the Roman hegemony that the Hellenic polytheists reasserted their identity; at the same time the way was prepared for their later adoption of Christianity. The ability of the Aegean diaspora to survive the monotheistic revolution of the Israelites during the 1st millennium BC provided one conduit through which the Hellenic culture of Athens was able to penetrate Israelite society.

The historical and cultural background of the Hellenization of the Jews is fundamental to understanding the necessity for the appearance of the Septuagint. In turn, the Septuagint affected Hellenism and the Hellenes through Egyptian-Jewish polemic (e.g. Manetho) long before its appropriation by the Christians. Post-biblical Jewish influence on Hellenism during the period from the 6th century BC to the 6th century AD, which followed post-biblical influence of Hellenic culture on Jews and Judaism, set the pattern for the subsequent 1500 years of western civilization through the autonomous developments within Latin, Greek, and Slavic Christianity, as well as Islamic and Judaic civilizations, the last dispersed among all the former. It was based on a discussion of man(kind) in social, ethical, psychological (i.e. study of the soul), philosophical (i.e. study of wisdom), rational, scientific, and mystical contexts. Here the Jewish concept developed through the techniques of Greek philosophy and rhetoric to produce an intellectual framework and created the means to "adjust" Hellenism into a monotheistic world view that has sustained western civilization until the present day.

The contacts and mutual influence between the two independent cultures underwent serious change after the conquests of Alexander the Great. The incorporation of the land of Israel and its scattered colonies (henceforth "diaspora") into a Greek-dominated *oikoumene* (world) necessitated a fusion of Hellenic and Israelite culture if the latter was to survive in the newly defined diaspora which offered to anyone the opportunity to *hellenizein* (i.e. to become a Hellene by learning the language and customs of the conquerors). While the autonomous temple-based culture of Jerusalem and the proto-synagogue Aramaized culture of Babylonia were slow to Hellenize, the Jewish communities of Egypt quickly adapted to the new situation. Widely scattered as part of the administrative and military structure of Persian Egypt, they adjusted to the Macedonian conquest and flocked to the new city of Alexandria. Only fragmentary information is available on the early stages of a parallel process among the Jewish military colonies in Anatolia or the Jewish merchant colonies (metics) in Greece and Macedonia. The widespread Jewish diaspora can be later traced in the Greek translation of Ezekiel (2nd century BC), Philo's report of his embassy to Gaius (1st century AD), and the peregrinations of Paul of Tarsus (1st century AD).

The Jews acculturated rapidly to the new system, in particular through the adoption of the Greek language which replaced the Persian and Aramaic they had used under the previous empire. Within a generation after the establishment of the Ptolemaic kingdom they were Hellenophone, which caused a problem with respect to their sacred scriptures. Since the middle of the 5th century BC Ezra, a priest and royal scribe at the Persian court, had declared that the five books of Moses

comprised their Torah, their God-given teaching (Josephus' *nomos*). Earlier prophets, such as Jeremiah, had emphasized the teachings of Moses with a stress on ethical standards and the command to remember their God and Zion. In Ptolemy's Egypt the Jews spoke Greek and so their Torah had become incomprehensible without the mediation of priests and preachers. Hence it was necessary to "interpret" a Greek version for these Jewish Hellenes.

The Septuagint, i.e. the translation of the "Seventy" as retold in the legend of the "Letter of Aristeas" (1st century BC), is one of the seminal phenomena of western civilization. It brought the Torah of Moses and the mythical-legal traditions of the Jews to the wider Greek-speaking world where it became part of the discussion between Hellenes and Jews, both polemically and apologetically, and also provided a means for syncretism as well as fusion of both Hellenic and Hebrew traditions. The Septuagint then was the Jewish claim to the ultimate historical and ethical truth in the Hellenic (i.e. Greek-speaking) *oikoumene*. Since it challenged Hellenic mythical-poetic traditions and philosophic posturings as did no other representation from the conquered peoples, it provided the intellectuals with a challenge to their own systems. Indeed, the first verse of the Septuagint, which allowed for a future doctrine of *creatio ex nihilo* somewhat different from the original Hebrew, would be at the centre of Christianity's polemic against polytheism and its critique of philosophy and science until the 20th century.

The impact of the Septuagint (the Pentateuch was translated in the 280s BC and the remainder by the end of the 1st century) was threefold. The Egyptian priest Manetho wrote an Egyptian history to show the Hellenes the antiquity of Egyptian civilization and its cult. He also denigrated the Jews in response to the Septuagint's rendering of the Exodus story. To his claim that the Jews were lepers banished to Jerusalem by the Pharaohs, later Hellenic rhetoricians from Alexandria and other schools added negative comments and misinterpretations about the Jews and their cult in Jerusalem. These were all gathered and refuted by a Jewish priest, Joseph ben Matityahu (Josephus Flavius), in his classic apologia *Contra Apionem*, written at the end of the 1st century AD. Yet the Septuagint and translations of the former and latter prophets (Joshua to Kings and the classical literary prophets) as well as other scriptures (both those later accepted into the biblical canon and a host of others) added a wealth of historical and ethical material to support the Jewish world view. In the extant Hellenic literature of the Hellenistic and Roman periods there are as many pro-Jewish as anti-Jewish sentiments, attesting to a perceived powerful and magical secret wisdom among the Jews. And there is the phenomenon of Hellenes converting to Judaism or adopting Jewish ethical teachings, even as the evolving Judaism contributed to the multiplicity of syncretic religions and sectarianism that characterized the period.

Three seminal Jewish figures participated in this process, all three of whom were to become virtual if not actual saints in the Greek Orthodox version of Christianity that became the dominant religion of medieval Hellenism: Philo of Alexandria, Paul of Tarsus, and Josephus Flavius. Philo produced an intellectual synthesis of Mosaic teaching and middle Platonic philosophy that successfully allegorized ancient Hebrew legends and laws into the philosophic language of Hellenistic Alexandria. His extensive corpus of commentaries provided the later Church with the tools and materials that would enable it to Christianize this material for its missionary and didactic missions. Paul provided a different synthesis. He successfully reinterpreted the northern Mediterranean fertility myths through the language of Pharisaic Judaism into an expanded conception of the Jewish messiah, the annointed one (*o christos*) who would bring salvation to his followers. So Saul of Tarsus, a former Pharisee (biblical interpreter), used his training in the oral commentary to the Torah, which had been further developed through the adoption and adaptation of Hellenistic rhetorical devices, and became Paul, the teacher to the non-Jewish Hellenes of the new chapter in human salvation initiated by the career of a Palestinian Pharisee who had been crucified by the Romans and later resurrected by the God who made heaven and earth (*cf.* Septuagint, Genesis 1: 1ff). These two near contemporaries, Philo and Paul, thus provided the methodology and ideology for a new synthesis of Hellenistic society and its salvation that was to dominate Hellenism until the present day. Josephus, the third figure, was a priest in Jerusalem who became one of the military leaders in the revolt against Rome (66–73 AD). After his surrender to the Romans, he became tutor to Titus and later a client of the Flavians in Rome where he undertook to write the official story of the Jewish war with Rome (*Jewish War*, 7 books) and to retell the history of the Jews (*Jewish Antiquities*, 20 books). The works of Josephus Flavius were later accepted as a secular (if not divinely inspired) commentary to biblical history by the Christian Church. As such, these works entered the church canon and provided factual and stylistic influence on subsequent theological and historical works among all linguistic varieties of Christianity, in particular Greek Orthodoxy. Indeed, Eusebius of Caesarea is acknowledged by modern scholars to be responsible for the adjustment of Josephus' mention of Jesus of Nazareth into a Jewish acknowledgement of the latter's legitimacy as the Christ, the true Messiah; this was, no doubt, a serious contribution to the "canonization" of Josephus.

Much of the Jewish literature of the Hellenistic and Roman periods was adopted, with appropriate Christianized interpolation, into the library of the new religion. This literature was excerpted by Eusebius of Caesarea and its fragments survive primarily in his massive two-volume apology against polytheism (*Praeparatio Evangelica*) and polemic against Judaism (*Demonstratio Evangelica*). Other works were incorporated into the canon of the Christian Bible in the 4th century AD which comprised works that, with the exception of the Gospel of St Luke and several letters, were written by practising and believing Jews who had accepted Jesus of Nazareth as the expected Messiah. Even more Jewish material survived as Christian apocrypha. Much of this literature contributed to the Hellenic Church's missionary and didactic policies. Martyrdom, for example, which derived from the Books of the Maccabees, became central to Christianity before Constantine the Great, and later became the ideology for the militant among Christians and Muslims to the present day. The survival of non-canonized material also contributed to the growth of heresy and to the ongoing questions of the nature and arrival of the promised redemption. It also contributed to the prevalence of magic and mysticism within Christian and Jewish Hellenic society during the medieval period.

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JOSEPHUS, FLAVIUS AD 37–after AD 93

Jewish historian

Flavius Josephus was an important figure in the Jewish community at the time of the disastrous Jewish rebellion of AD 66–67. Captured by the Romans while commanding part of the revolutionary forces, he was released and treated with honour for the rest of his life after correctly prophesying that Vespasian would become emperor. He then wrote, in Aramaic, a history of the revolt as a warning for Jews in the diaspora. This work, entitled *History of the Jewish War against the Romans*, is lost in the original Aramaic version, but the author later rewrote it in Greek with some help from unnamed Greek assistants, and it became his most influential work and for many centuries the definitive history of the revolt. Josephus then went on to write, this time in Greek, a massive history of Judaism from its origins to his times, entitled *Jewish Antiquities*. This work inevitably covers much of the same ground as the Old Testament, on several versions of which it is largely based, but it also makes use of other traditional Jewish writings and presents the events in a manner influenced by the tradition of Greek historiography. The work also goes substantially beyond the period covered by the Old Testament and in fact overlaps with material covered by the *Jewish War*. In addition, Josephus produced two minor works, an autobiography and a polemic in defence of Judaism known as *Against Apion.*

Josephus' style is not entirely consistent: on the whole his works display a good mastery of the Atticizing Greek used for literary purposes in his day, but occasional semiticisms can also be found. It is unclear how much of Josephus' style is his own and how much is due to the helpers he admits to having employed in rewriting the *Jewish War*, and on whom he may have relied for his other works as well. He tells us that he worked hard to overcome his difficulties with the Greek language and to give himself a solid grounding in Greek literature, but the extent of his acquaintance with the Hellenic tradition has been questioned. The influence of Greek authors such as Thucydides and Polybius can certainly be found in his works, as can a conscious determination to present his story to the educated Greek-speaking world in a manner consistent with, and attractive according to, the rules of the Greek literary tradition. Nevertheless there is reason to believe that the primary influence on Josephus was really the Jewish tradition in which he had been educated.

Despite the occasional infelicity, Josephus' works were praised as stylistic models in the Byzantine period (e.g. by Photios in the 9th century and Theodore Metochites in the 14th century), especially for the vividness and immediacy of his historical narration. They were also imitated by authors such as Niketas Choniates (12th–13th century).

Josephus' main importance for the Greek world, however, is to be found in religious rather than literary history. Thanks to the sanction of Christians such as Origen and Eusebius of Caesarea, in the medieval period Josephus' works became one of the most important historical sources for ancient Palestine. They were copied, epitomized, and excerpted freely and were translated into all the major languages of the medieval Mediterranean. From the 3rd century AD onward Christians saw the *Jewish War* in particular as a sort of continuation of the New Testament, showing the punishment of the Jews for the crucifixion of Christ. Authors such as the chronicler Malalas (6th century), the *Chronicon Paschale* (7th century), and Zonaras (12th century) made use of Josephus, or of works derived from his.

At the end of the Byzantine period Josephus' status as a church historian began to be questioned because of differences between his account of history in the *Jewish Antiquities* and that of the Old Testament, and in the 16th and 17th centuries

scholars began to debate the genuineness of a passage known as the "Testimonium Flavianum". This brief section of the *Antiquities* (18. 63–64) mentions Jesus and declares him to have been the Messiah; it seems to have been partly interpolated, perhaps in the 3rd century AD. As this passage was crucial to Josephus' status in the Christian Church (it is probably responsible for the fact that he was the only Jewish historian whose works were entirely preserved by the Byzantines), the debate over its authenticity did considerable damage to his reputation. This debate continued until the 19th century and is to a certain extent still current, though it is no longer crucial to the assessment of Josephus' overall worth as a historian.

For most of the Byzantine period Josephus' works, at least in their Greek form, were essentially the property of the Christian Church and remained basically unknown to the Greek Jewish community. In the 10th century, however, an anonymous historian in southern Italy produced a Hebrew chronicle based primarily on Josephus, and in the 11th century a Judaeo-Arabic version followed. Josephus' works were thus reintroduced to the Jewish community after centuries of use as Christian – and often anti-Semitic – documents.

Josephus remains today an important source of information on Jewish history of the 1st century AD, and his dramatic description of his people's tragic fate is as engrossing to read as ever, but his status as the inspired creator of an almost sacred text has been replaced by that of a fallible and often biased observer. His Greek style is also less highly regarded than it once was, and his current influence on Hellenic culture is minimal.

ELEANOR DICKEY

See also **Jews**

Biography

Born in AD 37, Josephus was a Jewish priest and a leading figure in Jerusalem at the time of the Jewish rebellion of 66–67. Though captured by the Romans, he was later released and treated well. He wrote in Aramaic a *History of the Jewish War* (of which a Greek version survives) and in Greek a history of Judaism entitled *Jewish Antiquities*. He died after AD 93.

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JUDICIAL PROCEDURE

The earliest written Greek laws were believed to be those of Zaleucus of Italian Locri Epizephyrii (*c.*650 BC). These were noted for their severity, as were the first written laws of Athens, those of Draco (621/20). Solon's laws (594/93) replaced Draco's in all areas except homicide, and the Athenian lawcode was henceforth known as the laws of Solon, regardless of later additions. Under the democracy laws were made in the assembly, and in 410 a revision of the laws was begun. Their inscription on stone led to a distinction between laws (*nomoi*) and decrees (*psephismata*), and from this time decrees of the assembly could not override the written laws, while the framing of new laws was entrusted to groups of "lawmakers" (*nomothetae*).

Athenian laws were essentially procedural rather than substantive. They specified the form of action to be taken against a transgressor without necessarily defining closely the transgression, and sometimes a choice of action was available to the prosecutor. The main categories were public and private actions. In public actions (*dikai demosiai*, but regularly named after the method of initiating the procedure) the offence was thought to affect the whole community, hence in addition to magistrates and officials it was open to "anyone who wishes" (*ho boulomenos*) to raise an action (i.e. any free adult male, except for those who had been disfranchized, and in some cases excluding non-citizens). The fine or penalty in a public action was paid to the state, but rewards were given to those who successfully prosecuted certain actions, especially *apographe* (deposition) and *phasis* (statement). To deter habitual prosecutors (the original use of the term "sycophant"), in most public actions those who initiated but subsequently dropped a case of failed to win at least one-fifth of the jurors' votes had to pay a fine of 1000 drachmas and were debarred from bringing similar actions in future (sycophancy was also an offence, which was prosecuted by *probole* – presentation of a case to the Assembly). Public actions included *graphe*, the regular public action (its name will derive from the fact that originally it was in this kind of action that a written charge was made; by the 4th century BC this had become the norm); *apagoge*, whereby the prosecutor arrested the accused (usually a thief caught in the act or a person caught exercising rights to which he was not entitled) and handed him over to the magistrates (regularly the Eleven); *endeixis*, a similar process to *apagoge*, but where the prosecutor denounced the accused to the magistrates and might then arrest him; *ephegesis*, whereby the prosecutor led the accused to the magistrates and they carried out the arrest; *apographe*, in which the prosecutor listed property allegedly due to the state and being withheld (three-quarters of the property would be given to the successful prosecutor); *phasis*, in which the prosecutor pointed out illegal goods or property (the reward here was one half of the fine imposed or of the confiscated property); *eisangelia*, a denunciation to the council or assembly, which might try the case or refer it to a jury court; *probole*, a denunciation to the assembly, which held a hearing and could, if the prosecutor wished to proceed, send the case to a jury; and cases arising from an official's preliminary examination (*dokimasia*) or his examination after office (*euthynai*).

In private cases (*dikai idiai*, but usually called simply *dikai*) the offence concerned an individual and could only be prosecuted by the person who alleged he had been wronged. If successful, the private prosecutor would be awarded damages or compensation. In *diadikasia* two or more persons disputed a right (especially to an inheritance) or obligation (such as to perform a liturgy) on equal terms. A special form of case was homicide (*dike phonou*), in which the relatives of the deceased were required to prosecute, but the offence concerned the whole community since killers were polluted. Hence the alleged killer

was debarred by a proclamation from scared and public places, three pre-trial hearings were held instead of the usual one, particularly solemn oaths were sworn, the trail itself was held in the open air in one of the special homicide courts, and the parties were each allowed to make two speeches, again instead of the usual one.

Suits were initiated by the prosecutor submitting his charge to the appropriate magistrate and delivering the summons to the defendant. The eponymous archon presided over cases involving the family and inheritance; the *basileus* (second archon) was in charge of homicide and religious cases; the *polemarchos* (third archon) oversaw cases involving non-citizens; the *thesmothetae* (the six junior archons) managed a wide range of cases in their court, the *eliaia*; the Eleven (police commissioners) were in charge of cases involving theft and similar offences; the generals conducted cases of military offences; and there were some lesser boards of magistrates for specific types of case. In the 4th century most private cases came before the Forty, four judges from each of the ten tribes selected by lot. The magistrate heard statements and evidence at an inquiry (*anakrisis*) and could settle minor cases himself, but otherwise would decide if the case should be sent to trial. In a private suit the accused might object that an incorrect procedure was being employed (*paragraphe*), and this would have to be decided by a separate hearing before the action itself could proceed. A trail in a private case before the Forty might be avoided by resorting to binding arbitration, a procedure that existed from earliest times in many Greek states and became particularly widespread during the Hellenistic period. Private and (in cases involving claims for more than ten drachmas) public arbitrators were used, but their decisions were appellable to the courts.

Trials in the 5th and 4th centuries were conducted in the popular jury courts (*dikasteria*). A panel of 6000 jurors over the age of 30 was selected each year, and Pericles introduced jury pay (two, later three obols per day). The size of the jury varied according to the type of case, but regularly numbered several hundred, and in order to prevent bribery jurors were allocated to the different courts by a lot system which became increasingly complex during the 4th century. The magistrate who had received the charge now presided, but did not act like a modern judge in giving directions or advice. Litigants were expected to represent themselves unless clearly unable to do so, but might call on friends to speak on their behalf (*synegoroi*); women and children were represented by their nearest adult male relative. The prosecutor was followed by the defendant, each making one speech which might have been written for him by a professional speech-writer (*logographos*); in the course of the speech laws and other documents might be read out by the court clerk, when the water-clock which timed the speech was stopped. Witnesses, who tended to act as supporters for the parties rather than as suppliers of information, gave evidence orally until the early 4th century and could only be questioned by the litigant who summoned them, but after this time written evidence was used and witness merely acknowledged the text was theirs. The disfranchised, women, and children could not appear as witnesses, and slaves' evidence was only accepted if extracted under torture and by the agreement of both parties (which in practice rarely if ever happened). The jurors had to cast their votes immediately after the speeches, with no summing-up from the magistrate or time to retire for consideration of their verdict. The original system of putting a pebble into one of two urns (one for guilty, one for not guilty) was replaced during the 4th century by a procedure in which each juror had two bronze votes, one of them with a hole to signify guilty, and the votes were cast one into a bronze, "valid" urn, the other into a wooden, "invalid" urn. The verdict was arrived at by a simple majority, with a tie counting as an acquittal (though by the 4th century odd numbers of jurors were used). There was no right of appeal, but the losing party might win compensation from a witness who was proved to have given false evidence, or occasionally have the case reopened. Penalties were either fixed by the law or decided by the jurors, according to the type of suit; in the latter case the two sides made further speeches proposing alternative penalties which the jurors would vote on. Monetary fines were the most common remedy, and other penalties included death, exile, the stocks, full or partial disfranchisement (*atimia*), and confiscation of property. Unlike in modern penal systems, imprisonment was used sparingly as a punishment.

Athenian law had little or no significance in the development of later legal systems, and reasons for this are not hard to find. The lack of a body of substantive law, in glaring contrast with the extensive Roman system, is the most obvious one, the absence of any doctrine of binding precedent another. But there cannot be precedent when every sitting of every court is the supreme and unaccountable representative of the democracy, and that is the point. The decisions of the dicasts were ephemeral, prone to be swayed by the clever speaker at the expense of truth; but the courts, with their large juries, *were* the people for the litigants appearing before them, and the popular jury system lay at the very heart of the Athenian democracy.

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See also **Law**

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KALAMATA

Port in the southern Peloponnese

Excavations have shown that Kalamata occupies the site of ancient Pherae which is most likely identified with the Pherae of the Homeric poems. In the *Iliad* "sacred Pherae" is one of the seven cities "on the border of sandy Pylos" that Agamemnon offers Achilles, hoping to persuade him to take up arms again (9. 149). According to the *Iliad* (5. 541–53) this Pherae is inhabited by Diocles and his sons, who set out for Troy to gain honour for the Atreids. In the *Odyssey* (3. 488 and 15. 186) Telemachus twice visits Diocles in Pherae on his way from Pylos to Sparta and back.

The status of Pherae in this period is not clear. A Linear B tablet (An 661) from Nestor's palace at Pylos may throw some light on this matter. It says, apparently in a case of emergency, that 30 members of the coast guard are to be sent to the Nedon. This river, and consequently Pherae, seem not to have been part of the area ruled by the palace, because the kingdom's coast was already occupied by guards.

The overall picture seems to indicate that Pherae did not strictly belong to the kingdom of Pylos, nor to Sparta. Situated "on the border of sandy Pylos" here apparently means on the other side of the border, because Nestor did not oppose Agamemnon when the seven cities were offered to Achilles. He would not have been so friendly if Agamemnon had been about to give away seven Pylian cities. The marshes of the Pamisos estuary in the lower Messenian plain could well have formed a natural border between Pylos and Pherae. But Pherae was not a kingdom itself, as stated by Homer, who never calls Diocles and his family kings, but just inhabitants of the city. The participation of Diocles' sons in the Trojan War in the regiments of Menelaus seems to indicate some degree of dependence of Pherae on Sparta.

In the 8th century BC Pherae was annexed by the Spartans, who kept dominion over the city until 371 BC, when the Thebans liberated Messenia. Pherae again fell into Laconian hands after the battle of Actium in 31 BC, when Augustus donated the city to his Spartan allies. Tiberius (AD 14–37) in his turn assigned the cities on the western flank of Mount Taygetos to Messenia. According to Pausanias (4. 30. 3), Pherae was an ancient medical centre. He writes that Diocles' daughter Anticleia married Machaon, the illustrious son of Asclepius. Their descendants remained in Pherae, and with them the power of healing diseases and curing the maimed. Pausanias refers to a sanctuary of Machaon's sons in Pherae and his tomb in Gerenia (modern Kambos).

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KAVALLA

Port in eastern Macedonia

In contrast to other towns of Macedonia which clearly have a medieval past, collective memory of Kavalla extends only as far back as the period of Ottoman rule. This does not, however, reflect the true situation, since the site was settled in antiquity. The ancient predecessor of Kavalla, Neapolis, was a colony of the Thasians, on the coast opposite their island, and existed at least as early as the 5th century BC,when it was included in the tribute lists of the Delian League. The site combined several geographical and strategic advantages. First, it controlled the narrow pass between the Lekani mountains and the sea which the land route from Macedonia to Thrace (the ancient Via Egnatia) necessarily had to pass through. Second, it provided access to and control of the gold-mines of Mount Pangaeum and the productive plain of Philippi/Drama. And third, it served as an outlet to the sea for the products of those regions. The importance of Neapolis was underlined when it served as the port of Philippi, 15 km to the northwest, throughout its long period of prosperity. Neapolis was renamed Christoupolis,

probably in memory of St Paul's disembarking there as he began his tour in Macedonia. By the 9th century the ancient name of Neapolis was probably completely forgotten.

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KINSHIP

The Greek words for "kin", *syngeneis*, and for "relationship", *syngeneia*, are compounds of the preposition *syn* and the word *genos*, whose usage is manifold in Greek to denote "genus", "category", "lineage", "family", "generation", "stock", etc. *Syngeneia*, then, means "common stock, generation, or lineage". The term, in its broadest sense, is used to define relationships by consanguinity (*ex aimatos*) or affinity (*ex anchisteias*). Consanguinal relations, however, are considered as closer than those established through the sexual tie of marriage since in consanguinity relatives ate thought to share the same substance, that of blood.

Rural and traditional Greek society has often been presented in the anthropological literature as a society overwhelmingly based on kinship. Scholars have singled out the family as Greece's most important social institution and pointed out that kinship pervades all aspects of traditional Greek social life. Kinship constitutes the basis for economic cooperation, political negotiation, and participation in ritual. Its role in the construction of personhood and gender identities is central. Although it can be argued that the urbanization and modernization of Greek society have caused the weakening of kinship ties, kinship still continues to influence social relations on many levels. Nepotism, kinship-based patronage, and formal financial partnerships formed among kin are not uncommon phenomena in the urban context.

The stress on the significance of kinship in the Greek social context is not only confirmed by studies of modern Greece, but also by those of the Classical and Hellenistic periods. The oeuvre of Greek dramatists amply demonstrates the crucial part played by kinship and family in ancient times. There is an observable tendency among Greeks of all periods to define themselves in terms of kinship connections; the ancient Greeks even based political requests and affiliations on real or fictitious kinship ties. Indeed, there is much evidence that shows the immense moral and political importance that the ancient Greeks attached to ancestry. Descent was often traced from a solitary figure, preferably going back to the traditional heroes or deities of Greek mythology. However, it should be pointed out that most of the information available on kinship in antiquity comes from Classical Athens. Generalizations are therefore problematic, and what follows is a synopsis in barest outline.

S.C. Humphreys distinguished four overlapping institutional kinship groupings in ancient Greek society: the official subdivisions of the state (tribe, phratry, deme, and so on), *genos*, kindred, and household. Each of them was characterized by its own structural principles, rules, and patterns of behaviour. Tribes and phratries were the main components or divisions of the citizen body. They functioned as administrative and military units. Membership of them was hereditary and obtained by patrifiliation. Every native-born Athenian male belonged to a phratry, which was a social group over and above the family, responsible mainly for dealing with questions concerning descent, access to citizenship, and inheritance rights. Members of phratries were known as *phrateres*, a word whose meaning is close to that of "brother". Women were usually denied rights of membership to them, but there were cases where women were presented to the phratry of their father or husband. The internal construction of phratries consisted of a variety of subgroups such as the *thiasoi*, responsible for internal political processes of the group, the *genos*, and others. It has been argued that the phratries were themselves subgroups of the Ionian tribes, which were abolished by the new system of Cleisthenes (507 BC). However, this argument rests on a thin base since phratries continued to be functional even after the introduction of the new system, which consisted of tribes and their subdivisions: *trittyes* ("thirdings") and demes. In Athens, each tribe comprised three *trittyes*, one each from the city, shore, and inland regions of Attica, which were divided into ten *trittyes* each. In turn, each *trittyes* contained between one and ten demes (in Athens there existed 139 settlements, villages, or town-quarters) and a fixed number of phratries. Hence, Cleisthenes created a ten-tribe structure, each tribe taking the name of a local hero and having a hereditary membership recruited along the male line. Thus, tribes, *trittyes*, demes, and phratries were all patrilineal clans and subclans, which, however, were not genealogically structured as was the case of the Greek patrilineal *genos*.

The *genos* was a kinship institution concerned mainly with aristocratic dominance of the succession to priesthoods. Its earliest use was to denote noble lineage, but in 4th-century BC Athens the term was employed to designate those individual or family groups that had a common plural name, usually derived from that of a genuine or fictive male progenitor. The stress, therefore, was on descent and the *genos* had the structure of a "conical clan". There is evidence suggesting that *gene* were phratry subgroups with a form and function different from phratries and thus not identical to them. Although *gene* were primarily concerned with retaining rights to hereditary priestly office, not all of them were concerned with religious privileges. The larger *gene* showed a variety of other interests relating to common property and admission.

Greek kindred in antiquity was bilateral, extending to second cousins and giving rights to inheritance by the laws governing intestacy. Moreover, marriages between close male kin and *epikleroi* (fatherless heiresses) were encouraged by the Athenian epiclerate. However, marriage in the kindred was restricted, but such impediments varied over time and space. An Athenian woman could not normally be married to a direct ancestor or descendant, nor to a sibling by the same mother (a practice known in Sparta). Yet, marriage between siblings of the same

father or to an uncle or a cousin was allowed. As far as kinship solidarity is concerned, it can be shown that the power of kinship to function as a structural principle of action beyond the bounds of nuclear family was limited in the urban context of the Greek city. Kinship ties did not play an important part in the relationships of Athenian citizens, and political and economic cooperation with kinsfolk was no different from that between friends. In fact, kinship ties were often considered burdensome and dangerous rather than supportive.

The smaller kinship group in ancient Greece was that of the *oikos* (household). The concept of the *oikos* incorporated not only its physical reality, but also designated a group of people who co-resided and were mostly – but not entirely – connected by kin ties (including affines). Finally, it even applied to property, land, and animals as well. Although, from Homeric times onwards, the nuclear family appears to have been the most common residential and economic unit, stem and extended families continued to exist. The circle of kin contained in such units included unmarried female relatives. Labour requirements were often met by the co-residing non-kin household members such as slaves. The emerging picture of the organization of kinship in the household setting is one that exhibits a patrilateral bias since postmarital residence was patrilocal: the bride moved into the groom's house after marriage. Though both matrilocality and patrilocality were a historical reality in Greek society and may have coexisted in the Bronze Age, after Homer the system tended to patrilocal marital residence and partible inheritance of property. In the household unit the man was the *kyrios* (head of household) and acted as such in the public domain. In the Homeric era a man's prestige was completely bound up with his *oikos*. In Classical Athens, however, men became more concerned with public institutions. For this reason, the acquisition of prestige became less *oikos*-centred and more directed towards public contexts.

In Byzantine society the term *syngeneia* was used to denote the family, which by the 8th century was primarily a nuclear one, as well as kinship relations beyond the family unit. From the end of the 11th century we have evidence for the emergence of lineages and for manipulation of ties of kinship in politics. However, unlike the Roman *gens*, Byzantine lineages were not strictly patrilineal and there is no evidence for an organizational structure to lineage and common landownership. The closeness of kinship relations was established by the degree (*vathmos*) of relationship, which was calculated down both collateral lines, beginning with the first births from the original parents and thus arriving at the second degree for two siblings. This reckoning of the degrees of kinship was important for determining marriage prohibitions and rights to inheritance. From the 11th century onwards a restriction of seven degrees appears to have been the prevailing rule adopted by Byzantine law and the Church, which forbade marriage among all blood, adoptive, and spiritual relatives to that degree of relationship and a limit of six degrees for those related by marriage. The rights of kin to inheritance were also determined by the degree of relationship to the deceased. In the case of *ab intestato* succession, from the 6th century onwards the general rule prevailed that all male and female relatives of the same degree of kinship had equal inheritance rights.

The marriage impediments established in Byzantine times are part of Greek Orthodox canon law and are still in force in modern Greece today, though native versions of calculating degrees of kinship are found in many communities. Modern Greece, by most reckonings, is characterized by a bilateral kinship system with a patrilineal skewing or bias that is revealed in various contexts and occasions. In Greece the bilateral form of the kindred is also reflected in terminology. The word for "kindred" is *soi* and refers to one's relatives both through the father and through the mother. Also, we can note the absence of separate terms of address for paternal and maternal relations outside the family.

Yet, it can be argued that modern Greece involves two distinct cultural traditions differing in kinship structure. Such differences are related to distinct modes of organizing post-marital residence, production, transmission of property, names, and reputation. The first cultural tradition is primarily associated with the pastoral and agricultural communities of mainland Greece. Their mode of production dictates an agnatic emphasis in kinship, a bias towards patri-virilocality, and promotes the submissiveness of women. Thus, in such societies brides would join their husbands' households upon marriage, while married sons would either co-reside with their parents or live close to their natal households. Property, names, and reputations are all transferred from father to sons. Yet, it should be pointed out that from the 19th century patrilineal corporate groups were a phenomenon in decline. In Mani the war towers reveal the existence of patrilineal-agnatic clans consisting of all patrilineal descendants of an apical ancestor. Each clan was further subdivided into *genies* (lineages), which branched off to smaller lineages, and these in turn to extended or nuclear families. The Maniot naming system is central to the processes of segmentation, fissioning, and clan formation. Each extended family household of a patriclan takes its surname from the first name of an apical ancestor, while the firstborn sons of male siblings take the first name of their grandfather. Other communities that have a bilateral kinship system with patrilineal overtones are the Sarakatsan shepherds, the Vlachs, and the shepherding communities of Crete. Finally, the agricultural communities of Euboea, Boeotia, and the Ionian islands also practise virilocality. Yet, their kinship system is characterized by a less strongly marked patrilineal bent compared to the societies mentioned above.

The second cultural tradition, which differs in the organization of kinship from the main body of Greece, is that of the Aegean islands. Its main characteristics are matrifocal kinship ties, the uxorilocal residence pattern, where the couple settles in the vicinity of the bride's kin, the rule of house inheritance by women, and the transmission of property and names through both lines, from mother to daughters and from father to sons. Thus, in such communities the kinship structure is characterized by a matrilateral bias, which promotes a comparatively privileged female position and the formation of nuclei of matrilaterally related women (mother and sisters) playing an important role within both the family and the community. This phenomenon should also be linked with the absence of men for long periods of time due to their sea-related occupations. In between these two types of communities there are others that practise neolocality, where each nuclear family resides in its own dwelling and has a fully bilateral kinship system.

In the Greek understanding of kinship there is a clear distinction between blood ties and affinal ones. In the physical world blood relations are considered stronger since they create a natural union among living kin. In the spiritual world, however,

blood is substituted by another life-giving substance, that of oil to create a spiritual relationship (*pneumatiki syngeneia*), which is likened to kinship. This relationship is known in Greek as *koumparia* and is established by the sacraments of baptism or marriage. In many areas of Greece it is customary to renew the relationship, which is inherited through the male line. The godfather of the groom, and not of the bride, becomes their wedding sponsor. This may be regarded as a consequence of the patrilineal bias in kinship. Apart from its spiritual function, godparenthood has also acted in the Greek context as a powerful vehicle for strategic alliances, political recruitment, and patronage. Today, however, in the urban context we notice the tendency of selecting godparents from within the circle of close kin or even from within the family itself.

Another form of ritual kinship that existed in the Greek context, but did not endure to the present time, is that of blood brotherhood (*adelphopoiia*). Blood brotherhood appeared in Greek society after the conquests of Alexander the Great. While in the beginning the tie between two people was established through the symbolic exchange of blood, later on, with the spread of Christianity, this symbolic act was replaced by the prayers of a ritual. There were repeated prohibitions against *adelphopoiia* by the Orthodox Church. Nevertheless, the practice remained widespread in many areas of rural Greece up to the civil war. Its social function was to cement friendship, especially in communities where vendettas were common, and carried with it an obligation of mutual help and support. A marriage impediment existed for those belonging to families that were related by blood brotherhood.

Adoption is also regarded as a form of fictive kinship and in Byzantine times became a spiritual relationship, like that of godparenthood, with which it shared similar marriage prohibitions. Adoption was practised when a childless couple or a couple that had no male children desired descendants and heirs. In antiquity we find the institution of the transfer by adoption of one son from a household with several male heirs to the family of a close kin with none. This practice has continued in Greece up until recent times, particularly in communities with agnatic descent, as a means of continuing the family line and perpetuating the family name.

Finally, secular kinship serves as a model for structuring other types of social relations, such as those between superiors and monks or nuns, and between confessor and confessant. In Byzantium kinship terminology was also used to describe the relation of the emperor to his subjects and to foreign Christian rulers.

ELENI SOTIRIU

See also **Adoption; Family; Marriage; Patronage**

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KNOSSOS

Urban settlement and palatial centre in Crete

Knossos lies in the centre north of Crete, two hours' walk from the sea: set amongst low hills, on fertile marly soil and well enough watered. This was a combination that attracted the Neolithic settlers, around 7000 BC, and led to their creating over the next three millennia a substantial tell and the largest of their settlements on the island. Knossos occupied a position of importance, even pre-eminence, seldom surrendered throughout its subsequent history.

Archaeological exploration has revealed that its finest period was as a palatial centre of the Minoans in the Bronze Age (3500–1000 BC), known even then as Knossos. Its rise was gradual, though by 2000 BC (EM III/MM I) the settlement was nearly as extensive as it ever was and already centred on a monumental structure, now replaced by the First Palace. About this extended the town, apparently unfortified, and with cemeteries developed especially to the east and north: it was a "capital" of one of several regional groupings, perhaps jockeying for wider power. Knossos seemingly achieved this *c.*1700 BC (MM III), when the Second Palace was erected: its prosperity and vigour were shared islandwide; Minoan dominance was evident in the Cyclades and culturally influential in southern Greece. This frenetic burst of activity may have overtaxed the resource base on which it depended: events and reasons are still disputed, but *c.*1450 BC (LM Ib) much of the island was destroyed in fire and smoke. When this had cleared, power at Knossos was exercised much as before, but now by an elite with a distinctly Mycenaean flavour: changes were expressed in ceramics, dress, weapons; iconographical themes, stylistic renditions; burial types, customs, and locations; and most significantly by the adaptation of the Minoan administrative system and syllabic script, now utilized to express Greek (Linear B). Their control was maintained at least to 1375 BC (LM IIIA1), when a fire ravaged town and palace. Some scholars see this as the end of the Mycenaeans' control; others prolong their existence well into the 1200s BC (LM IIIB). Either way, the town did survive, at a much-reduced scale, with a simpler, if comfortable, standard of living (LM IIIB) before fading into the very troubled times of the 12th century BC (LM IIIC).

Continuity was somehow maintained in this transitional period: Dorian cultural traits became dominant in this region of Crete. The important early Iron Age cemeteries (11th–7th centuries BC) north of the Bronze Age town indicate this by their use of a Late Bronze Age burial ground, by its rapid expansion, and by the complex burial customs and quite lavish grave goods, with overseas connections visible. Sanctuaries were built over part of the Bronze Age settlement. This flourishing community, with its horse-owning aristocracy, can be traced down to the late 7th century BC, when the evidence dwindles dramatically. The implication is that the polis of Knossos was in decline. Reasons have been sought in military defeat (by Lyttos), plague, and famine. For the Classical period (5th–1st centuries BC) much of the piecemeal evidence comes from literary and epigraphic sources: stasis in the 470s, federal relations with neighbours, migration of ambitious citizens (athletes, architects, and lawgivers) to more progressive milieux. Crete remained peripheral to the Persian and Peloponnesian Wars. By the time of the rise of Macedon, Knossos was populous, to judge from the size of the famine relief donated by Cyrene from 330 to 326 BC. Like much of the Greek world, Knossos was dragged by political manoeuvring into the wider hostilities of the time: internal feuds with Lyttos brought in Phocians and Spartans, and Alexander's campaigns against Darius saw many Cretans dragooned into fighting on the Persian side.

Once released, the genie of military aggression proved to be beyond control. Knossos pursued political domination in the Hellenistic period (4th–3rd centuries BC), more by a network of alliances than outright conquest, though there were exceptions. Knossos' eminence in this struggle is indicated by the island-wide spread of its league, by which it hoped to neutralize more local coalitions. Success was achieved initially: Lykastos, for example, was reportedly razed to the ground; Lyttos fared badly in the war of 221–219 BC; Apollonia and Rhaukos became victims in the early 2nd century BC. But there were setbacks too: a defeat (184 BC) by Gortyn foreshadowed a series of damaging campaigns between these two eminent cities into the 1st century BC; Lyttos grew strong again. Knossian troops were also active abroad as mercenaries, generally staunchly anti-Macedonian.

The Roman incursion (1st century BC) produced one Knossian hero: Lasthenes, who won a sea battle, for which success his house and property were destroyed at the final Roman conquest (69 BC). Gortyn, however, became the premier city, initially in the combined Roman province of Crete and Cyrenaica. After the confusion of the civil wars with Antony, Octavian created the Colonia Julia Nobilis Cnossos in 27 BC. Latin names (settlers from Capua?) feature now in the magistrates and priesthoods. Knossos became a typical Roman provincial city: rebuilt after a series of earthquakes in the early to mid-1st century AD, the colony enjoyed a long spell of prosperity, as well-appointed houses, some rich tombs, and public works (aqueduct) attest. A further major quake in the mid-4th century AD cut this short.

Not that Knossos was ever exactly forgotten. The town makes regular, if relatively uninformative, appearances in Classical to Roman sources (often in historical or philosophical contexts): Nero was fooled into believing that a cache of tablets (Linear B?) told part of the story of Aeneas' flight to Italy. The Roman ruins were visible for centuries.

Rather the focus of attention has always been more firmly fixed on its Bronze Age past, translated into myth and legend. This process was under way by the 8th century BC, when the island and its peoples played a peripheral part in Homeric epic.

Inevitably, Minos and his court attracted most attention. The positive aspects of his character (as a respected judge in this and the next world; the special relationship with Zeus; and as brother to Rhadamanthys the lawgiver) sit a little at odds with his crueller, imperial side (feuds with Athens, control of the seas, conqueror and dynastic manipulator throughout the Cyclades). His nemesis came upon him in the shameful form of the Minotaur, his downfall at the hands of Theseus, and his

death in Sicily from betrayal and an over-hot bath. Daedelus, Icarus, the Labyrinth, Glaucus, Ariadne and Talos are other characters that figure in the same circle of stories. All remain potent icons and symbols, tapped into by today's Greek artists and intelligentsia, and regarded with justifiable pride by modern Cretans.

DON EVELY

See also **Minoans**

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L

LACONIA

Region of the southeastern Peloponnese

The district of Laconia – Homer's "hollow Lacedaemon" – occupies the southeastern part of the Peloponnese, around the valley of the river Eurotas. To the west is the mountain range of Taygetus, the highest in the Peloponnese, whose summit is usually snow-covered at least into May. To the east is the Parnon range, which runs southwards to the peninsula of Malea. In the Homeric poems this is the homeland of Menelaus, brother of Agamemnon and husband of Helen whose abduction by the Trojans was the whole cause of the siege of Troy. Menelaus is the second-rating, after his brother, of the Argive kings, which would lead one to expect in Laconia a Bronze Age palace and citadel comparable with that at Mycenae, and at least the equal of the "Palace of Nestor" in neighbouring Messenia. If such a palace existed, it has not been found, though, adjacent to a natural mound on which in Classical times the shrine of the deified Menelaus and Helen was situated, there is a sequence of Late Bronze Age structures of some quality, not, however, palatial in scale. This, like other Mycenaean sites in Laconia, was destroyed about 1200 BC, at which point Laconia relapsed into total obscurity and, it would seem, was largely denuded of its population.

At least two centuries later, and probably not before the middle of the 10th century BC, Dorian newcomers settled in the upper reaches of the Eurotas, about 50 km from the sea, opposite the site of the Mycenaean buildings, but on lower ground. Here they formed a group of villages which collectively became the Classical city state of Sparta though, as Thucydides famously pointed out in the introductory chapters of his *History*, even at the end of the 5th century BC physically the city remained nothing more than a collection of villages. Four of them formed the city itself, while a fifth was politically part of the same city state structure, at Amyclae, a short distance to the south. The institutions of the Spartans, similar to those of the Dorian settlers in Crete, remained notoriously distinctive and primitive through the Classical period. They retained, almost to the end of their independence, a curious dual kingship, the reasons for which can only be guessed at. The purpose of these institutions was to create and sustain a military elite, the Spartiates, who alone had full citizenship rights, and with this to establish and maintain a supremacy which was extended, probably by the end of the 8th century BC, over the whole of Laconia, and in the following century crossed the mountain boundary of Taygetus to incorporate Messenia. Outside Sparta the population of Laconia comprised two categories: the Helots (a term which probably denotes that they were "prisoners"), who worked the land – to which they were tied – on behalf of Spartiate landlords, who were thus freed from labour to pursue their military functions; and the *perioikoi*, the "dwellers round" who were free, living in their own communities, but subject to Spartan control and under an obligation to render military support when called on to do so (the same distinctions were extended into conquered Messenia).

The land round Sparta is extremely rich agriculturally; fertile alluvium, well watered by streams fed by the melting snow on the mountain, running into the Eurotas and making it a river which continues to flow throughout the summer. For this reason, at the present day the district has suffered less than most parts of Greece from rural depopulation – with virtually all basic commodities produced locally there is less incentive to migrate to Athens. Conversely, the promontory at the southern end of Taygetus, the Mani, is desperately poor land, with much consequent migration, particularly to Australia. It was undoubtedly the wealth of the land round Sparta that led to it becoming a major city of Classical Greece, though situated at such a distance from the sea.

The communities of *perioikoi* were more varied. Some, like Geronthai (modern Geraki) southeast of Sparta, had long antecedents, but being in areas with poorer agricultural resources could never achieve the power of Sparta, and were satisfied to be part of the Spartan system (conversely, the reason they were not reduced to Helot status was probably that their land was less desirable to the Spartans). Other such communities served more specialized functions, the most important of these being Gytheum, which was the chief harbour town.

Despite being so far inland, Sparta experienced the same artistic development as the other leading areas of Greece in the 8th and 7th centuries BC, resulting from the renewal of

overseas trade. Goods imported from the Near East are found there, while Laconian pottery evolved into a distinctive style, after the dull wares of the Dark Age, and was exported to north Africa (Cyrene) and south Italy, where Taras (Tarentum, modern Taranto) was a Spartan colony. There is good evidence for the development of Spartan poetry, and the creation of the shrine to Menelaus and Helen, the Menelaion, on the mound which looks as though it were their tomb (though in reality it is a natural outcrop of rock) shows that the Spartans of the 8th and 7th centuries were well aware of the Homeric poems and the story of the siege of Troy. It was probably the difficulties of maintaining control over rebellious Messenia – another source of wealth – which in the later 7th and 6th centuries caused the Spartans to turn their back on this development, and reinstate with great rigidity (to the curiosity of progressive Greeks, such as the Athenians) the primitive militaristic training and regime for which they became notorious.

After the defeat of the Spartans by the Boeotian League in 371 BC, and the consequent loss of Messenia, Sparta dwindled in political importance; but the potential strength of Laconia was realized once more, after 150 dormant years, when king Cleomenes III carried out a redistribution of the land, and so recreated a substantial citizen army, only to be defeated by the Macedonian army of Antigonus Doson.

In Roman times Laconia became a quiet backwater, enjoying some imperial and other external patronage. Substantial theatres were built at Sparta and Gytheum, and the mosaic pavements of Spartan houses attest to a comfortable standard of living. In the troubled later Roman period fortifications, incorporating the theatre, defended only a reduced area. The city was sacked by Alaric in AD 396, but survived, though the later habitations built over the theatre are wretchedly squalid. Laconia, however, remained a vitally important area, though in the Middle Ages the centre of interest shifted to Mistra, the stronghold city on the foothills of Taygetus. Originally a Frankish foundation, Mistra was recovered by the Byzantines, and blossomed as a centre of late Hellenic culture, where George Gemistos Plethon's teachings took Platonism as the means to emphasize an intellectual continuity from the Classical world. Mistra, in turn, dwindled under Turkish occupation, though still equipped with a splendid series of late Byzantine churches. With the freeing of Greece after the War of Independence, the attempt to recreate the Classical cities led to the redevelopment of a modern city on the approximate site of Sparta. With its inevitable grid plan of streets, and an imposing Neoclassical town hall, splendidly restored in recent years, Sparta remains a relatively small but very prosperous market town for Laconia, whose good land now grows citrus fruit in abundance (the small town of Hagios Stephanos has an annual Festival of the Oranges): the perioikic land of Geraki is devoted largely to olive groves.

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See also **Sparta**

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LAND TENURE

Throughout the history of the Greek people access to use and ownership of arable land has been a central concern. The classical polis restricted land ownership to those who were citizens and, more often than not, refused full political rights to those who were too poor to own land. In the countryside the transition from ancient civilization to Byzantium was marked by the gradual disappearance of the small freeholder who worked his plot with the assistance of chattel slaves, and the spread of a class of technically free persons who were only conditional cultivators of the property of large landholders. Increasingly exploitative practices under the Ottoman rulers resulted in the virtual depopulation of many areas of rural Greece, and it was not a simple matter for the first post-independence governments to create the conditions under which land could be distributed and made productive again.

In exploring the question of land tenure from the 8th century BC to modern times certain issues keep recurring. Could one alienate land? What laws of inheritance applied to land? Does the payment of taxes or rent imply a less than full ownership of the land? In addition to exploring these rather legalistic issues, one must also keep in mind a recurring theme in Greek beliefs about landholding: the most desirable state of affairs is for all citizens to have roughly the same amount of land. Social and legal mechanisms which tend to work against the formation of large estates are a stated goal of lawgivers and political theorists at least until the 4th century BC.

The earliest Greek writer to deal specifically with these questions is Hesiod. At the very end of the 8th century BC he composed *Works and Days*, a didactic poem addressed to his brother Perses. Hesiod covers a wide variety of subjects as he lectures Perses, but his central complaint involves land ownership: his brother has snatched most of their joint inheritance with the connivance of "bribe-eating lords", in spite of their private, apparently more equitable, agreement. In view of this, and his advice later in the poem to have only one son (in order that the family's wealth should grow), it is clear that in Boeotia of Hesiod's day it was the practice for all sons to inherit a part of

their father's land. He also makes it clear that land could be alienated when he promises that, if Perses follows his advice, he will be able to buy the land of other people, instead of seeing his own land bought up by others. Finally, the complaints against the corrupt officials indicate that by the 8th century such disputes could be taken to an authority outside the family.

Evidence for Archaic and Classical Greece is far more abundant, but often confusing and contradictory. Both the 7th and 6th centuries BC and the 4th to the 2nd centuries BC were eras of widespread civil strife in many poleis, where conflict centred around disparities in wealth. Therefore, later writers tend to reconstruct earlier conflicts in terms of contemporary conditions. In the case of early 6th-century Athens, for example, Solon was appointed archon to deal with the crisis of debt bondage. Although this much is certain, the genesis of the crisis, its exact nature, and the content of Solon's legislation remain the subject of considerable dispute. Solon's own words about his aims and how he viewed his accomplishments in his legislative programme have survived, but as poems, not official documents. Adding to the confusion are various 4th-century sources which tried to coopt Solon's legacy in support of their own oligarchic or democratic philosophies. Any modern attempt to reconstruct the situation which Solon faced and how he dealt with it must take into account his own statement that, while he did cancel debts, he did not redistribute land, though some apparently expected him to do so. Current opinion holds that the land which the poor worked as sharecroppers was either their own land which they had been forced to mortgage (Burford, 1993, p. 51) or public land which had been commandeered by the wealthy (Rihll, 1991, pp.123–24). Solon in effect gave this public land back to the community, allowing the cultivators to become the owners. He is also credited by ancient writers with making it illegal to alienate one's inherited plot. The alienability of land in Classical Athens continues to be a controversial topic among scholars. On the one hand, there are specific cases of land being sold by at least the late 5th century, and on the other hand, there was obviously great social pressure against sales of this kind. The law of Athens went to great lengths at times to ensure that land would stay in the family, as is attested by the rules concerning the marriage of an *epikleros*, an heiress. When a man died leaving behind a daughter, but no son, this daughter was to be married to her nearest male relative. Ideally, she would bear two sons; one of whom would inherit from his father, and one from his maternal grandfather. This would also reconcile two conflicting desiderata: to give each son an inheritance and to keep the family holding undivided.

Other poleis had other strategies for preserving a rough equality among the citizens, ensuring each family a minimum livelihood. The Spartans called themselves *homoioi* ("equals"). Each male Spartiate was entitled to a portion of land which was worked by helots, and from this he contributed to the communal mess. Inability to make this contribution resulted in the loss of citizen rights. Again, Spartans were theoretically unable to alienate their ancestral plots. But by the 4th century BC the number of Spartans who were financially eligible to serve as hoplites had fallen disastrously. Wealth had accumulated in the hands of a relatively small portion of the population due to the transfer of property through dowry and inheritance by women: the wealthy were able to absorb more and more of the community's land through advantageous marriages.

The situation which allowed the Greeks to approach most nearly the ideal of equality among the citizens was the founding of a new colony. Beginning in the 8th century BC and continuing into the 5th century poleis would often solve their demographic problems by sending a portion of their citizens out to non-Greek territories to found a new city. Prospective settlers went on the understanding that the territory of the new polis would be allocated on an equitable basis. This did not mean that everyone would get exactly the same amount of land, but that, with no preexisting claims to the territory, and taking into account the variable quality of the lots, each would get a reasonable portion of the total land resources. When the division was done, the colonists would often swear an oath to abide by the distribution, and there might be actual legal penalties brought against anyone who in the future sought to have land redistributed.

In the 4th century the orator Isocrates described Greece as a land rent with civil strife and filled with destitute fugitives who posed a continuing threat to social order. His proposed solution, eventually made a reality by Alexander the Great, was a war of conquest against the barbarians, which would provide new lands on which to settle this horde. Whether or not conditions were quite so desperate in reality as in the speeches of Isocrates, it is certain that many Greeks left their homeland to settle in Egypt and the Near East as a result of Alexander's conquests. Those who went as soldiers were often rewarded for their services with grants of land. Since these grants were generally conditional upon continued military service, they frequently found it more profitable to lease the land to native cultivators. Furthermore, while the Greek poleis had avoided imposing direct taxes on land, seeing it as a sign of tyranny, those who received their plots from the Hellenistic kings usually found that they came with a whole host of taxes in kind and in cash. Individuals or colonies might be granted immunity from these taxes, but even this immunity served to underscore the fact that all the land was ultimately the possession of the king and not of the citizen body.

In the Greek homeland this emigration did not lead to a more stable situation with regard to agricultural conditions. Instead, there was a continuing tendency for the few to accumulate larger properties, or a larger number of scattered properties, which would be leased to the increasing numbers of those without land or without enough land to live on. In recent years archaeological surface surveys have confirmed, independent of literary testimony, that the number of rural sites decreases from the beginning of the 2nd century BC, particularly at the time of the Roman conquest of Greece. These sites are generally associated with small independent proprietors. Sites that continue to appear in the archaeological record tend to be larger and show signs of affluence. On the basis of this evidence it has been suggested that the rural landscape came increasingly under the control of a few wealthy landlords. Their large estates would have been devoted to the production of cash crops and worked with large numbers of slaves. Alternatively, income could have been produced by leasing out plots of produce rents (Alcock, 1993, p. 72).

The late Roman landscape of Greece, however, shows a significant increase in the number of rural sites and there is a

general sense of modest prosperity in the countryside. This is not really surprising, given that the peasants of the eastern Roman empire were not nearly as vulnerable to the pressures of large landowners as those in the western provinces, where the medieval institution of serfdom was already evolving. In the 4th and 5th centuries AD village communities of Asia Minor, Syria, and Egypt were still benefiting from the Hellenistic legacy of widespread urbanism. With towns and cities in which to market their products the peasants were able to pay their rents and taxes and maintain at least a measure of independence. This is not to say that conditions were not felt to be oppressive. Taxes were collected on both the land and its cultivators, peasants were always subject to extra assessments of produce and to demands for corvée labour. They had neither unrestricted freedom of movement nor an unlimited right to alienate their land. Reactions to these oppressive conditions often took the form of brigandage (Haldon, 1990, pp. 31–32), a phenomenon which also characterized the late Ottoman period.

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See also **Inheritance**

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LANDSCAPE

The great beauty and diversity of the Greek landscape were seldom fully appreciated by ancient Greeks, to whom these wonders were commonplace, or by modern tourists, who miss the glamorous parts. The best description of what the ancient Greek landscape looked like is the vision of the 12 mountains of Arcadia in the early Christian prophecy of Hermas, an Arcadian shepherd.

Greek landscapes are dominated by tectonics. Greece lies near the junction of two of the world's great tectonic plates, where Africa is burrowing under Europe. Over millions of years the forces of collision have generated the dramatic mountain landscapes of Greece, with their cliffs, gorges, and fault-scarps, especially around the gulf of Corinth and in Crete. Secondary effects include erosion and deposition, and the re-erosion of materials deposited during earlier periods of mountain building. Erosion has created the surrealistic gullied badlands of Macedonia and the northern Peloponnese, and the corresponding deposition has created many of the cultivable soils of Greece. Mountain building is, of course, still continuing today. At least three volcanoes – Santorini, Methana, and Nisyros – have erupted in historic times.

Most of the modern Greece is rocky, with cultivation limited to plains or to places where soil has washed off the hillsides and accumulated in basins. Areas of land for cultivation were extended by the construction of terraces, bands of soil held up by retaining walls. Terraces created a level surface, got rid of boulders by building them into walls, accumulated and held soil, broke up the bedrock so that roots (especially of vines) could penetrate it, and increased absorption of water in times of heavy rain.

Wild vegetation in Greece ranges from forest to desert, depending mainly on rainfall and how much moisture is stored in the soil and bedrock (see the article on Climate). Forests occur mainly in mountains, especially in western Greece; often they occur on fissured limestone with no soil. In drier or more heavily used terrain forest gives way to maquis, land dominated by shrubs, most of which are in fact trees stunted into a shrubby form by browsing, burning, or woodcutting. Alternatively trees may form part of savanna, where large trees grow scattered in grassland or heath. Where moisture is more limited, the vegetation consists of *phrygano* ("scrub"), dominated by heath-like, spiny, or aromatic undershrubs which are not potential trees. Steppe is herbaceous vegetation with grasses, bulbous and tuberous plants. Patches of maquis, *phrygano*, and steppe typically occur intermingled, rather than in separate areas.

In Ancient, Byzantine, and Early Modern Greece wild vegetation was not underused land. It provided pasturage, fuel, materials for crafts, honey, edible plants, and medicinal herbs. The plants, except for those limited to cliffs, have the ability to resist, or recover from, browsing, burning, and woodcutting.

In pre-Neolithic times Greece was more wooded than it is now; in the drier east the trees probably formed savanna. There is some evidence for steppe, but *phrygano* was probably limited to particular, mainly coastal, areas. Crete and other islands may have differed from the mainland, owing to their peculiar faunas (nearly all extinct by the Bronze Age), including tiny elephants and mini-hippopotamuses. Lacking predators, these animals would have flourished sufficiently to bring about an ecological condition that would today be regarded as excessive browsing.

During the Neolithic and the Bronze Age the Greek landscape was affected both by increasing human activity and by the advent of a drier climate. Forests on good soils were uprooted to create farmland; on the remaining land native animals were replaced by domesticated – goats, sheep, and cattle. Forests retreated to places with moisture or good root penetration,

being replaced by maquis or savanna. Undershrubs profited from the changes to establish areas of *phrygano*. The date, nature, and consequences of deforestation are controversial, but there is no firm evidence that Greece in Classical times was more wooded than it is today.

By Classical times ecological changes were largely completed. The landscape looked not very different from Greece today, aside from urbanization, road making, and bulldozing. An important difference is the disappearance of fens, most of which were destroyed in the 19th century. Classical Greece had much more grain and legume cultivation than today, and much less olive-growing; they kept cattle and pigs, as well as sheep and goats. At least half the land was natural vegetation (forest, savanna, maquis, *phrygano*, steppe, and fen). There was already the infrastructure of a cultural landscape in the form of roads, field walls, pollarded trees, and some terraces. Terracing, begun in the Bronze Age, was probably more limited than in Early Modern times; no ancient author definitely mentions it.

The coast of Greece has also changed. After the last ice age the world's sea level rose some 100 m to about its present level. This created bays, which have since become river deltas or have been filled with material eroded from the hills. At the same time the land has been jerked up or down by tectonic movements. A famous example of coastal changes in historic times is at Thermopylae, where the site of the ancient sea-cliff battles is now well inland and deeply buried.

Ancient city states varied hugely in the territory and resources that they controlled. Athens and Sparta were giants, with access to all ecological zones, from mountains to the sea. But even Athens was not self-sufficient in timber and not always so in grain. Some of the smallest cities had recourse to only one or two ecological zones, like the three states on the barren mountain isle of Amorgos, or the city of Tarrha at the mouth of the gorge of Samaria in Crete, which apparently had no ecological resources at all except cypress timber.

In antiquity Greece was not, as today, a land of cities and large villages set in otherwise uninhabited countryside. Instead there were small towns, small villages, hamlets, and single farms, grading into field houses that were inhabited only seasonally. Such a dispersed pattern of settlement still survives in western Crete, the Mani, and the island of Cythera; elsewhere, especially in the Middle Ages and the 16th century, houses have clustered into villages.

The use of the land would also have fluctuated over the centuries, as the human population rose and fell and as opportunities for trade changed. At times of prosperity, cultivation and pasturage would have increased so that the land would have been fully used or overused. In leaner times trees and other vegetation would have been left to invade fields and pastures.

Good and bad land has not always been same as now. Some rugged, water-retaining, fertile mountain areas, such as northern Parnon, have a history of dense population. Some apparently promising plains, as at Nemea, have had periods of use only as pasture. Undrained fens, now despised, were precious as summer pasture for cattle. Coastal plains, though offering good land, and small islands have not always been favoured for cultivation or settlement because of the danger of raids by pirates.

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See also **Animals; Climate; Demography; Ecology; Geology**

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LANGUAGE

The term "Greek" refers to the language spoken by the Indo-European inhabitants of Greece from their first arrival in that land to the present day. Greece was already populated when they arrived (probably not long after 2000 BC), but the original inhabitants spoke another language of which little trace remains; since there is no consensus even as to which language family it belonged, it is simply referred to as "pre-Greek". Greek itself belongs to the Indo-European family of languages and is thus related not only to Latin (and hence French, Spanish, and all the other Romance languages), but also to Sanskrit (and hence Hindi, Bengali, etc.), Hittite, Armenian, Albanian, Tocharian, Persian (and Kurdish, Afghan, etc.), the Celtic languages (Irish, Welsh, etc.), the Germanic languages (English, German, etc.), the Baltic languages (Lithuanian, etc.), and the Slavic languages (Russian, Bulgarian, etc.). Since all languages change over time, however, these relationships were much closer in ancient times than they are today.

The original Proto-Indo-European language from which Greek and all of these other languages evolved was highly inflected; it had eight cases for nouns and divided number not into singular and plural but into singular, dual (used for two objects or people), and plural (used for three or more). It also had a number of sounds that have since disappeared from many of its descendants, such as vocalic (vowel-like) forms of L, R, M, and N, aspirated consonants such as DH, BH, and GH, and mysterious "laryngeal consonants", the exact pronunciation of which remains uncertain. On the other hand the parent language lacked many sounds with which we are familiar, such as F, V, J, CH, Z, and TH.

Greek is one of the oldest attested Indo-European languages; its earliest known form is Mycenaean, the language of the Linear B tablets. Since these tablets date from the 13th century BC or earlier, the history of Greek can now be traced over a period of 33 centuries. Because Linear B was written in a

syllabary that did not indicate all the sounds of a word, however, and because it was used for writing lists rather than literature, much remains unknown about Mycenaean Greek. Nevertheless, we can see that it had already evolved to be recognizably Greek rather than Proto-Indo-European. The dual and some consonants that Greek would later lose (Q, W, Y, H) were retained, but the old case system was somewhat simplified and a number of consonants and vowels had disappeared. Mycenaean Greek, as we have it, does not appear to be divided into dialects; tablets from Thebes, Pylos, and Crete show only minor variations in language. Nevertheless it is likely that speakers of other Greek dialects were present somewhere in Greece during the Mycenaean period: not all classical Greek dialects can be descended from Mycenaean, but all show evidence of contact with the pre-Greek population and thus of having existed in Greece for a similar length of time.

The Mycenaean period ended around 1200 BC and was followed by a time known as the Dark Ages, when writing was unknown throughout most of Greece. (A relative of the Linear B script seems, however, to have survived in Cyprus, where it later reemerged as the Cypriot syllabary). There is thus a gap during which one cannot trace the evolution of the Greek language; after the Mycenaean period, it next appears with our earliest evidence of the Greek alphabet, in the 8th century BC. By this time the number of cases had been reduced to five, the dual was in the process of disappearing, Q and Y had been entirely lost, and W was on its way out. Moreover, the Greek language was divided into a vast number of local dialects. Of these, only those spoken in Arcadia and in Cyprus appear to be direct descendants of the Mycenaean dialect; the other dialect groups, including Attic (the dialect of Athens), Ionic (the dialects of Greeks in Asia Minor), Aeolic (the dialects of the Lesbians, Thessalinas, and Boeotians), and Doric (the dialects of Crete and most of the Peloponnese) seem to be descended from something slightly different. All the dialects, however, are clearly part of the same language and were mutually comprehensible.

The language normally described by the term ''Classical Greek'' is Attic, the dialect of Athens in the 5th century BC. At the beginning of the 5th century BC this dialect had no special status, but Athens' rise to political prominence during the Persian Wars and the extraordinary quantity of first-class literature produced by Athenians in the 5th and 4th centuries BC rapidly made Attic the most important Greek dialect. This is not to say that all ancient Greek literature was written in Attic; far from it. The earliest surviving literature, the Homeric poems, is written in a mixed dialect based on Ionic and containing almost no trace of Attic, and the poets who first followed Homer used a variety of dialects, none of them Attic. The Attic dialect first came into prominence with the development of tragedy, which was a distinctively Athenian genre. Even tragedies, however, were not simply written in the native dialects of their authors. The dialogue portions were composed in an artificial and elevated literary Attic with many features from other dialects, while the sections sung by the chorus were written in what was nominally Doric, though in some ways it would be more accurate to describe it as a Doricized Attic.

Comedy, however, made much more use of ordinary Attic, as did many prose genres. A peculiarity of Greek literature of the Archaic and Classical periods was that literary genre rather than the author's origin normally determined the dialect used. Thus although two of the greatest early Greek poets, Hesiod and Pindar, both came from Boeotia and would naturally have spoken an Aeolic dialect, Hesiod wrote in the Ionic-based epic dialect and Pindar wrote in Doric, because these were the dialects appropriate to their chosen genres (respectively epic poetry and choral lyric). Tragic choruses had to be composed in Doric because of the tradition of Doric choral song out of which the tragic genre evolved. Scientific and historical prose was originally written in Ionic, but as time went on Athenian prose authors began to write in an Ionicized version of their own dialect. Many of these literary dialects, however, were rather different from the same dialects as used for non-literary purposes by native speakers and attested in local inscriptions; they contained features of other dialects and were usually meant to be separated from and elevated above the usages of ordinary speech.

In the 4th century BC the political power of Greece was gradually eclipsed by that of its northern neighbour Macedonia. The issue of whether the Macedonians could be considered Greeks was debated in ancient times much as it is today. Little remains of their original language (which is unconnected to the modern Slavic language known as ''Macedonian''), and from that little it is possible to argue either that Macedonian was a bizarre Greek dialect or that it was a different but related language. The Greeks themselves seem not to have understood it as easily as they understood each other's Greek dialects. Culturally, however, it seems that the Greeks looked down on the Macedonians as uncivilized barbarians, and the Macedonian monarchs reacted to their own feelings of inferiority by a programme of linguistic and cultural Hellenization. Greek was adopted as the official language of the Macedonian court, where from the time of Philip II Greek literature and education were highly valued. Because of the political and literary importance of Athens, the form of Greek adopted by the Macedonians was an Ionicized Attic.

The Macedonians soon became far more powerful than the Greeks from a political point of view, but even after conquering Greece they retained their respect for its language and culture. The conquests of Alexander the Great in the late 4th century BC thus had the effect of spreading the use of the Greek language and the appreciation of Greek literature and culture over a huge section of the ancient world. In the Hellenistic kingdoms that resulted from Alexander's conquests, Greek became the language not only of the court, but also of business, administration, and most upper-class interaction. Education normally consisted of training in the Greek language and literature, and knowledge of Greek was required for entry into the civil service and the army. Greek rapidly became the mother tongue of the elite as well as being widely spoken as a second language by much of the population. The less educated lower classes went on speaking their own languages most of the time, but these languages were less likely to be used in written communication.

The Greek used in the Hellenistic kingdoms was based on the Ionicized Attic adopted by the Macedonians, but it was sufficiently distinct from the dialect of Athens that it acquired a new name, the *koine* or ''common dialect''. The Koine was in some senses a uniform dialect; the differences between Koine documents from different parts of the Hellenistic world are minimal compared to, say, the differences between Attic and Doric. In other respects, however, it was far from uniform; there

was some local variation, and a good deal more variation based on the level of education of the writer and his intended audience. The most highly educated Hellenistic scholars, however, could and did produce not only Koine but also the various literary dialects of the earlier periods.

In Greece itself the loss of the individual city states' political autonomy in the Hellenistic period led to the decline of the local dialects. Although most of the ancient dialects survived into the Roman period as spoken languages, the use of Koine came to be seen as a mark of education, in Greece as in the rest of the Hellenistic world. The result was that Koine supplanted the local dialects as the language of the elite and gradually became the official written language of cities that had once proudly displayed their own dialects in inscriptions.

Eventually Greece and the various states that had been part of Alexander's empire fell under Roman rule. This meant the introduction of Latin into Greece, but since the Romans had no cultural heritage to compare with that of Greece, the status of their language suffered greatly. The use of Latin never became widespread in Greece, but Greek grew more and more popular in educated circles in Rome. Meanwhile, in the other states that had been part of Alexander's empire, a tripartite linguistic situation arose: Latin became the language of some administrative and military circles, but Greek remained the language of education and culture, while much of the native population went on speaking the language that they had spoken before Alexander's arrival. The most important and prestigious of these three languages was normally Greek; in Egypt, for example, where large quantities of public and private documents have been preserved on papyrus fragments buried in sand, it is clear that most writing was done in Greek. In fact, the eastern half of the Mediterranean in the Roman period was often called the "Greek east". The degree to which Greek actually replaced local languages, however, depended on the region; in Egypt, despite the vast numbers of Greek papyri, most of the peasants spoke Coptic, but in Asia Minor the native languages tended to die out completely during the Roman period.

The dialect of Greek involved, of course was still the Koine, but after centuries of evolution and of being used as a second language it showed some significant differences from the Ionicized Attic with which it had begun. These differences are perhaps greatest in phonology, for the pronunciation of Greek changed dramatically during the Hellenistic and Roman periods. At the time when the Greeks began to use the alphabet (the 8th century BC), their language contained ten simple vowels (A, E, I, O, U, each of which had separate long and short forms) and a wide variety of diphthongs (AI, EI, OI, UI, AU, EU, and OU, many of which could have either a long or a short vowel as their first element). By the Classical period, however, the short diphthongs EI and OU had already been monophthongized, and shortly afterward those diphthongs that consisted of a long vowel followed by I lost the I. (As a result, this I was not normally written in ancient documents, but it now appears in Classical texts as the iota subscript.) Then the short diphthong AI merged with short E, UI and short OI both merged with U, and the already monophthongized short EI merged with I. Eventually the distinction between long and short vowels was lost altogether.

The consonants phi, theta, and chi, which had originally been aspirated stops (P followed by H for phi, T followed by H for theta, K followed by H for chi), turned into the fricatives F, TH (as in English "thing"), and CH (as in German "ich", not English "change"), while in most contexts the voiced stops B, D, and G became the voiced fricatives V, TH (as in English "the"), and the voiced equivalent of CH (which does not exist in English). In the Classical period Greek did not have a stress accent as in English, where one syllable of each word is perceived as pronounced more emphatically than the others, but rather a pitch accent as in modern Norwegian, where an accented vowel is perceived as pronounced on a higher pitch (one Greek grammarian speaks of the voice being raised by a musical fifth). In Koine, however, the Greek pitch accent changed to the stress accent that is still used in Modern Greek.

It is sometimes difficult to pinpoint the date of these changes in pronunciation, not only because they occurred gradually and probably took effect in some regions before others, but also because the Classical spelling remained in use for most written documentation. Spelling mistakes, however, are very useful in tracing linguistic evolution: when papyri regularly show AI for E and E for AI, this is evidence that the two were pronounced the same, and the date when this mistake becomes common (the 2nd century BC) can be taken as one by which the change was complete, at least in Egypt. Borrowings into and from other languages also give us clues: when the Romans first began to borrow Greek words containing the letter phi, they represented it with PH, showing that the sound in question was an aspirated P. But later on the sound of phi changed to F, and at that point (the 1st century AD) the Romans used F to represent it.

The complex grammar and syntax of Classic Attic were also simplified in Koine. Two past tenses, the perfect ("I have done") and aorist ("I did") became interchangeable so that either could be used in either sense; eventually the perfect died out and only the aorist was used. The optative, a verbal mood used to express wishes and potentiality and which replaced the subjunctive after verbs in a past tense, disappeared from Koine almost entirely. The middle voice, which in Classical Greek was distinct from both the active and the passive in meaning, if not always in form, was also lost. At the same time many irregularities of declension and conjugation were eliminated; thus, for example, the verbs that had originally ended in –MI began to lose their distinctive conjugation, although this change was completed only in the Byzantine period. During the Roman period many words of Latin origin also found their way into Greek.

The changes in grammar, syntax, and vocabulary were more often reflected in writing than those in pronunciation, but they too could be avoided by more educated authors. The New Testament, for example, is a document of the early Roman period written in a fairly basic form of Koine; it displays a grammar and syntax that are much simpler than those of Classical Attic. But it is not a uniform text written by a single author, and in some portions, for example the Gospel of Luke, even the optative appears. Other writers of the early Roman period, such as Polybius and Plutarch, wrote in a very different type of Koine far closer to Classical Attic. Since Greek education stressed the reading and memorization of Classical texts, there was a certain status attached to an ability to write Greek in a manner closer to that of those texts. Writers

with a good education normally came from a fairly high-status background and naturally wanted their works to show this education and background, although if they were writing for a popular audience they might simplify their language in the interests of comprehensibility. People with little education did not normally become writers – the New Testament is something of an exception in this regard – but they often composed private letters which have survived on papyrus and tell us much about the evolution of non-literary Koine.

One of the most significant linguistic events of the Roman period was the revival of literary Attic in the 2nd century AD. Whereas earlier well-educated writers had been able to win respect using a form of Koine relatively close to Attic, it was now necessary for them to use "pure" Attic, a language as close as possible to that of Plato and the Classical orators. In the 2nd century AD Attic came to be seen as "Greek"; everything else was simply evidence of lack of education. The great writers of the period, such as Lucian, managed to achieve Atticism to a remarkable degree. Purity of language was required not only in writing but also in speech, and the opprobrium heaped on men of letters who accidentally delivered themselves of a non-Attic word or phrase is well documented. This does not of course mean that everyone in the Greek speaking world began to speak Attic in the 2nd century; far from it. But everyone with literary pretensions tried. The reason for this revival seems to have been a desire for closer association with the glorious Greek past, since continuity of culture, the one thing that the Greeks had in a world dominated by the Romans, appeared to be assured by linguistic closeness to the past.

After the 2nd century AD the extremes of the Atticizing movement were modified, but the achievements of the period had a lasting effect on literary Greek; Attic always remained as an ideal, even if fewer writers pursued it. Written Greek came to consist of a range of styles combining Attic and Koine; at the top end of the spectrum were compositions in almost pure Attic, but these were the exception rather than the rule, and most writing showed some or many Koine features. Virtually all writing, however, was conducted in a language distinct from that used in normal speech. Learning to write involved learning the use of written Greek, rather than learning how to transcribe one's own speech. This situation is not so different from that which exists today for English, where learning to write involves learning the difference between "too" and "to", and at a higher level between "its" and "it's".

Starting in the 3rd century AD military imperatives forced a gradual administrative division of the Roman empire into eastern and western halves, with a resulting decline in linguistic interaction. In the 4th century the capital of the empire was moved from Rome to Byzantium (refounded as Constantinople), a move that bolstered the status of Greek as an imperial language and led in time to its official recognition as such. The use of Greek in the West and that of Latin in the East was sharply reduced, particularly after the early 5th century collapse of the western Roman empire. The eventual result was a government in Constantinople that used Greek and ruled a largely Greek-speaking (whether as first or second language) populace, but which still regarded itself as being the Roman empire. From this situation arose the use of term Romaic ("Roman") as a name for the Greek language; this term remained in use as late as the 19th century as a means of referring to spoken, as distinct from written, Greek. Even today, some Greeks use *Romios* to mean "a Greek person".

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See also **Alphabet; Dialects; Grammar; Linear B; Syllabary**

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LARISSA

City in Thessaly

Larissa is located in the middle of the Thessalian plain on the right bank of the river Peneus. It is about 32 km from the sea, and bestrides the major north–south routes between Athens and Macedonia. Among the few remains of the early city are a late Hellenistic theatre excavated near the modern main square, a low hill to the south of the square marking the site of the ancient acropolis, and the remains of the Byzantine *phrou rion* (fortress) to the east of the square.

The name Larissa is pre-Greek, and means "citadel". (Indeed, settlement on the site goes back to palaeolithic times, as is attested by archaeological remains.) According to Greek mythology, however, the city was founded by Acrisius, the father of Danae and the grandfather of Perseus, and was named after a nymph (whose likeness appears on coins of the 4th century BC). Unlike other places in the area, such as Phthia, Larissa is not named in the catalogue of ships in book 2 of the *Iliad,* or indeed in the rest of the *Iliad* or *Odyssey,* though some scholars have wanted to associate Larissa with the city Argyssa, which is mentioned in the catalogue of ships.

When Larissa first became important in Greek history, it was dominated by the powerful family of the Aleuadae. Their influence in Larissa, and, to a lesser extent, in Thessaly as whole, lasted from the early 6th to the end of the 4th century BC. The founder of the family was Aleuas, who claimed descent from Heracles. Although tradition more strongly associates Heracles with the rival (and related) Scopadae of nearby Crannon, the late 6th- and early 5th-century BC poet Simonides is cited by Theocritus (in *Idyll,* 16. 34–46) as praising Aleuas among other Thessalian grandees, such as the Scopadae and the Creondae, for his wealth: "Many slaves drew their monthly rations / in the palaces of Antiochos / and King Aleuas" (tr. Barriss Mills).

The Aleuadae were renowned as patrons of literature; writers of different generations and genres such as the poet Pindar, the Presocratic philosopher and rhetorician Gorgias, and the physician Hippocrates are all said to have spent time in Larissa as their guests. The fact that both Gorgias and Hippocrates are said to have died there may be a less than ringing endorsement of Aleuad hospitality.

Politically speaking, the legacy of the Aleuadae was more mixed. They were strongly associated with the political and military organization of Thessaly along federal lines. Thorax, the leader of the Aleuadae at the time, and his brothers sided with the Persians, during Xerxes' invasion of Greece in 480 BC, as did the neighbouring Macedonians. This realpolitik led to a loss of influence by the Aleuadae after the Greeks defeated Xerxes and drove his army out of Greece. Furthermore, by the end of the 5th century BC, a democratic revolt in Larissa and the rise of tyrants at Pherae had weakened the power of the Aleuadae. In the 4th century BC they made the fatal mistake of calling upon their fellow Heraclid, Philip II of Macedon, as an ally against the tyrant of Pherae. Philip annexed all of Thessaly and held it, despite an unsuccessful revolt of the Aleuadae in a belated attempt to undo their mistake. The Aleuadae faded from history thereafter.

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See also **Thessaly**

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LAURIUM

District in Attica

The district of Laurium played a pivotal role in the history of ancient Athens. It covered an area of about 200 square km, extending from Anaphlystus south to Sunium and then north to Thoricus. Hilly with only a few plains and subject to scarce rainfall, Laurium's importance in antiquity lay in its argentiferous lead, mined by slaves for centuries. Mining may have occurred as early as the Middle Bronze Age (at least at the site of Thoricus), when open-cast mining was used to extract silver and lead. As excavations have shown, mining in Laurium continued down through the Archaic period. Shafts or adits were sunk to reach the highly argentiferous ore deep under the surface; while some shafts reached a depth of over 130 m and were fitted with wooden ladders, huge galleries, and ventilation shafts. The extracted ore was sent to workshops (*ergasteria)*, which included grinders, washeries, cisterns, furnaces, and cupellation work-areas. Athens considered the mines state property, but leased them at annual fixed rates (typically 4 per cent) to private individuals or companies (*poletai),* which employed slaves and condemned criminals. (Many of these lease arrangements have been published; see the bibliography below.) The mines proved especially important in the 5th century BC. In 483 a particularly rich vein was struck at Maronea, immediately yielding 100 talents of silver. With the Persians advancing on Greece, the Athenians, on the advice of Themistocles, elected to use the silver to finance an additional 100 triremes; the augmented Athenian fleet defeated the Persian navy at the decisive battle of Salamis in 480, preventing a barbarian conquest of Greece. The mines continued to produce large amounts of silver during the century as Athens built its maritime empire. In the later stages of the Peloponnesian War, production ceased when the Spartan army, on the advice of the renegade Athenian general Alcibiades, occupied the nearby mountain pass of Deceleia, thereby blocking the land route from Euboea to Athens. In 413 over 20,000 slaves at Laurium reportedly defected to the Spartans. The mines were reopened after Athens had established in 377 the Second Athenian Confederacy; extensive mining was conducted for the rest of the 4th century. However, mining ceased in the 3rd century (the last dated lease is from 306 BC) due to a precipitous decline in the price of silver caused by the flooding of Macedonian gold coinage. Limited and sporadic mining occurred down to the end of the 2nd century, but slave uprisings in the 130s and 100s helped bring about the closing of deep mining. During the Roman empire slag heaps on the surface were resmelted, but otherwise the area was abandoned. It is estimated that altogether 2,000,000 tons of ore were smelted, with a yield of 1200 tons of silver and 400,000 tons of lead. The mining and processing of cadmium, magnesium, and lead continues in the area to the present day.

The administrative and economic centre of ancient Laurium was the city of Thoricus, located in the very northeast corner of the district. The ancient site is spread over on the side and top of the mountain Velatouri; its harbour, a refuge fortress built during the Peloponnesian War on the St Nikolaos peninsula, also served as a naval base. The lower slopes of the mountain were ringed by a fortification wall. Inside the wall are remains of numerous houses, workshops, ore washeries, an extensive industrial quarter, three sanctuaries, and a theatre. The theatre, with a unique design and shape, was first built in the 6th century BC and later expanded in the mid-4th to a seating capacity of 5000–6000; a temple of Dionysus formed part of the west entrance. Nearby necropolises have yielded nearly 200 tombs from the Protogeometric to the Hellenistic periods; some of the Geometric houses found among the graves show signs of silver working. Higher up, on the Velatouri, are prehistoric remains. Three Mycenaean tholoi or beehive tombs and a Mycenaean chamber tomb have been excavated; signs of cult worship in the Archaic period are evident. Trial trenches have demonstrated that the acropolis was inhabited as early as the beginning of the Early Bronze Age (*c.*2900 BC) down through the Geometric period, when houses were built over the remains of prehistoric dwellings. The site was abandoned during the early Roman empire. Neighbouring silver-mining sites in the Agrileza district, Pountazeze Bay, Mekala Perka, and Gaïdhouromandra Bay have recently been uncovered.

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See also **Silver and Lead**

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LAW

Evidence for the legal history of Greece is patchy. For some periods there are only the legislative texts, for others only contracts or court decisions. In these cases, the extent of the gap between the law and its application remains unknown. This article will attempt to provide a brief overview of the available sources of law in different historical periods.

The sources of law in ancient Greece include inscriptions preserving laws and decrees of the assemblies of the city states, private transactions (sales, manumissions, wills, leases, loans), interstate agreements, lawcourt speeches pertaining to political and legal disputes in 4th century BC Athens, philosophical and sociological treatises, and, to a lesser degree, literature (comedy and drama). A particular case in the ancient Greek world is Egypt under the Ptolemies. The legal system, developed over almost ten centuries, is preserved in numerous papyri written in Greek, including all kinds of documents from receipts for deliveries and censuses to marriage and divorce agreements, inheritance settlements, loans, etc.

The several hundred tablets of Linear B, the earliest deciphered form of writing in Greece, from 13th century BC Pylos, Knossos, and Thebes reveal very little, if anything at all, about the legal aspect of Mycenaean society. They relate mainly to the administrative structure of these kingdoms and the status of the land.

The earliest information on law concerns procedural affairs or what is sometimes called dispute settlement. In the 8th century society of the Homeric poems and especially in the famous scene on Achilles' shield (*Iliad,* 18. 497–508), the disputants over the payment for homicide present their case to the assembled elders. Hesiod, the next earliest source, refers to gift-devouring kings when it comes to adjudicating disputes. In the late 7th century BC there was a wave of legislators, especially in the colonies of southern Italy (Zaleucus Epizephyrii at Locri, Charondas at Catana) and only subsequently in Athens (Draco), Sparta (Lycurgus), and Mytilene (Pittacus). The content of their legislation is preserved in a piecemeal way by later authors, who underline the moral and pedagogical aspect of their legislation (laws about revenge, about amending laws, banning the sale of land, regulating family life, etc). The first firmly attested laws come from late-7th-century Crete. They mainly concern procedural matters, such as the ban on magistrates serving a second term in office in the small town on Driros (*M-L,* 2). However, the most famous example of legislation from Crete is the early-5th-century inscription known as the "law-code of Gortyn"(*IC,* 4. 72). The Gortyn laws regulated property affairs between spouses in case of divorce or death, inheritance, adoption, sexual offences, personal status, and procedural matters associated with them. Recent research suggests that these laws did not form part of a codification programme but were the outcome of successive stages of codification and amendment.

The best-known legal system of the ancient Greek world is that of Athens. The first major legislative effort was made by Solon in 594 BC. It comprised constitutional reforms (establishment of a council), the abolition of debts, and innovations in the inheritance laws. Further reforms in the constitutional framework were introduced by Cleisthenes in 509 BC (new administrative units and a reformed council) and in 462 BC by Ephialtes (reduction of the political powers of Areopagus). The text of the Draconian law on homicide survives from the late 5th century. The main characteristics of law in Athens in the 5th and 4th centuries BC were: (1) law thought of as a piece of evidence, (2) the lack of autonomy of the legal sphere, (3) the interaction of politics and law in the domain of public law, (4) the multiplicity of procedures available to the prosecutor, (5) popular courts appointed by lot, (6) lack of definitions of offences, and (7) absence of a professional class of jurists and lawyers.

For the remaining city states and kingdoms, with the exception of literary (and for some questionable) tradition on the Lycurgan legislation in Sparta, there are only fragmentary and isolated pieces of evidence about their legal systems. These are mainly decrees of the assembly honouring individuals, registers of acts of manumission, of leases, sales of land or other transactions, which do not provide a coherent picture of legal life.

The rise of the kingdom of Macedonia followed by the foundation of numerous Greek colonies in the Middle East, Egypt and Anatolia resulted in the interaction of the laws of the city states among themselves and with the laws of the colonized lands. Egypt is the best documented example of this

interaction between the laws of the Greek settlers, soldiers, and officials and the local population. In Greece proper the Macedonian domination did not affect the legal life of the cities to the point of obliterating their autonomy. Certainly, the kings of Macedonia and their successors granted conquered land and privileges to their friends and friendly cities. But they did not interfere directly with the legal institutions. In the same way, the Roman conquest of Macedonia in 168 BC and of the remaining Greek cities in 146 BC did not mean the abolition of their legal autonomy. Most cities kept their legal institutions and rules except in the area of public law, which had to accommodate Roman wishes. The Romans applied Roman law only to Roman citizens while the affairs of the conquered people and the allies were regulated by the *jus gentium*. That period ended with the grant of Roman citizenship by Caracalla in AD 212 to every free inhabitant of the empire. From that moment, Roman law superseded the laws of the remaining city states. The extent to which local laws and customs disappeared or influenced the application of the rules of Roman law is still debated.

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See also **Judicial Procedure**

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LEBADEA

City in Boeotia

In antiquity Lebadea was best known as the site of the oracle of Trophonius. Today, it is the largest city in Boeotia.

The town spreads out on both sides of the river Hercyna, which issues from an impressive gorge, dominated at one end by a Frankish castle and at the other by a graceful Turkish bridge. Lebadea lies south of Chaeronea, southwest of Orchomenus, and west of Coronea, from which it is separated by Mount Laphystion. Like Mount Laphystion, the later polis of Lebadea originally belonged to Orchomenus. Legendary connections linking Lebadea and Laphystion to Orchomenus (Trophonius and Agamedes were sons of Erginus of Orchomenus, and Athamas king of Orchomenus attempted to sacrifice his children to Zeus Laphystius) support the impression that Lebadea was originally a dependency of Orchomenus (Lebadea's absence from the Homeric Catalogue of Ships – strongly felt by later inhabitants, who identified their polis with Homeric Mideia – is another indication).

The earliest contemporary references to Lebadea by name occur in the 5th century BC. Lebadea and the oracle of Trophonius seem to have come to the notice of the outside world, that is to say, Athens, at the time of the battle of Coronea in 446 BC, after which the oracle began to become famous. Lebadea was independent by the end of the 5th century BC. Under the federal constitution described by the Oxyrhynchus Historian, Lebadea at this period took turns with Haliartus and Coronea in contributing one of the II Boeotarchs (Hell. Oxy. 16 [II]. 2–4). Although attacked and plundered by Lysander in 395, the polis recovered sufficiently to issue its own independent coinage after the King's Peace (the absence of any coins attributable to Lebadea in the late 6th century is another indication that it had not yet become independent at that time).

Lebadea was one of few towns in Boeotia to survive and prosper throughout antiquity. By AD 100 it was one of the most important towns on the mainland, and an almost obligatory stop on any visitor's "grand tour", no doubt because of the oracle of Trophonius, its best-known sanctuary. This was just outside the town, on the banks of the river Hercyna. The oracle functioned as early as the 6th century BC and perhaps even earlier. It shares the characteristics of two distinct types of oracle. The first, exemplified elsewhere in Boeotia at the Amphiareion near Oropus (and also possibly at the Thesprotian Nekromanteion), is one where the god lives underground and is approached directly at night by the consultant. Trophonius' oracle was also one of a number clustered around Lake Copais, each situated more or less at the limits of its polis. Here the predominant features were a hill or mountain represented by a young god, and a spring issuing from it, represented by a nymph who was usually the god's *trophos* (nurse). Divination came through inspiration caused by drinking the water of the spring, which was the real medium.

The traveller Pausanias (second half of the 2nd century AD) gives a vivid description of his own consultation of Trophonius. First, he spent several days in a house sacred to the Good Daemon and Good Fortune, bathing only in the water of the Hercyna, and sacrificing to the divinities of the sanctuary. The entrails of each victim were scrutinized to see if the omens were favourable. On the night of the actual descent he put on special clothes. The procedure began with the sacrifice of a ram over a pit and invocation of Agamedes: only if the omens from this sacrifice were favourable could the consultation proceed. He was taken to the Hercyna, anointed and washed, and then to two adjacent fountains of Forgetfulness and Memory, from which he drank. Then, after worshipping the early cult image of Trophonius, he proceeded to the oracle, where he was let down into the chasm by means of a ladder. At the bottom he lay on his back, holding honey-cakes in his hands, and thrust his feet and legs into a narrow gap between the wall and floor of the pit, whereupon he was pulled through the hole. Inside he was confronted by the god (Pausanias says that prophecy could come by sight or sound, but does not say what his own experience was), and then thrust out again feet first through the same hole. Back on ground level, he was seated by the priests on the throne of Memory, and asked to describe his experience.

The other important cult at Lebadea was that of Zeus Basileus (the King), probably the same as the god worshipped on neighbouring Mount Laphystion. He is best known in connection with the games called *Basileia,* which the Boeotians, under the leadership of the Thebans, founded to commemorate their victory over Sparta at the battle of Leuctra (371 BC). The Thebans chose the site carefully, to emphasize their own domination of Boeotia and the consequent humiliation of Orchomenus.

The intertwined development of the two cults – of Trophonius and Zeus Basileus – reveals how religion, politics, and commerce interacted in the life of a polis. In the latter part of the 3rd century BC the polis of Lebadea undertook a major building project, which would affect its two outstanding attractions, the sanctuaries of Trophonius and Zeus Basileus. The plan was to build a temple of Zeus – huge by the standards of mainland Greece – on the top of a hill which dominated the route leading past Lebadea to Delphi, as it still does. They also planned to move the site of the oracular chasm from inside the sanctuary of Trophonius to the mountain top. The plan to build the temple failed due to shortage of funds. The project was eventually taken over by the Boeotian Confederacy, but too late, for very soon afterwards the confederacy was dissolved by the Romans and all that was left of the undertaking were the foundations of the building – on the hill called Profitis Ilias – and a pan-Boeotian college of *naopoioi* (temple fabric officers) who, since their work was never finished, were never disbanded.

The other part of the project was completed. It is quite clear from Pausanias that the oracle was not in the sanctuary of Trophonius itself, but beyond and above it, on the hill which also bore the temple of Zeus Basileus. In fact, the remains of this man-made hole were discovered between the foundations

of the temple of Zeus Basileus and the chapel of Profitis Ilias (although it has since vanished with the complete rebuilding of the chapel).

Aside from these two important sanctuaries, relatively little is known about public religious activity at Lebadea. There has been no systematic excavation in the ancient town site: accidental finds late in the 1930s revealed evidence for the worship of the mother of the gods, of Artemis Eileithyia, and Zeus Meilichius. Their find spot, although it was clearly not at their original sites, suggests that the sanctuaries of these deities were at or near the outskirts of the urban area of the polis. Pausanias says only that Lebadea had all the amenities of a normal Greek polis, but he does not describe them. To him they were banal, and not as interesting as the oracle of Trophonius.

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See also **Oracles**

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LEMNOS

Island in the northern Aegean

The position of Lemnos in the northern Aegean, where it lies midway between the tip of the Mount Athos promontory and the coast of Asia Minor, meant that control over it was always sought after. Any ships entering or leaving the Hellespont (the Passage of Romania, now the Dardanelles) could do so only with the knowledge (and often the permission) of the current rulers of Lemnos. The frequency with which their identity might change is a symptom of its strategic importance to the Hellenic world throughout its history. The island is now administered under the nomos of Lesbos.

Lemnos has an area of 476 sq km and, like a number of the Aegean islands, its shape indicates its volcanic origins, two bays to north and south almost dividing the island in two; the smaller, eastern, sector was where the capital of the island in antiquity, Hephaestus, was situated, while on the coast of the western sector, larger and much more mountainous with the highest peak of Mount Skopia reaching 430 m, the medieval and modern capital of Myrina is located. The low-lying and flatter areas of the island are quite fertile, and produce a variety of crops. A tradition, already current in antiquity and still existing in the 20th century, credited Lemnian earth, excavated on one day each year, with the power of healing many kinds of wounds; it was exported all over the Hellenic world.

In antiquity Lemnos figured both in Homeric legend and in Hellenic history. Herodotus (4. 145) related how the Argonauts, who according to legend had arrived on the island and left progeny there, were driven out of Lemnos three generations later by the Pelasgi. Later (5. 26) he described how Lemnos, with Imbros, was taken from the Pelasgi by Otanes, who had already occupied Byzantium and Chalcedon. The stronghold of Myrina figured early in the history of the island, as when Miltiades, having called on the Pelasgi to leave the island – a call which the townspeople of Hephaestus obeyed – was defied by the inhabitants of Myrina, whom he besieged (no doubt secure in their rock-perched fortress) before eventually ejecting them by force.

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LEONIDAS *c.*530–480 BC

King of Sparta

Leonidas was famous for his heroic attempt to hold the pass of Thermopylae in central Greece against the advance of the Persians under king Xerxes in 480 BC. His father, Anaxandrides of the Agiad royal house (Sparta had a dual kingship with two royal houses, the Agiads and the Eurypontids), had married his niece but had no children, whereupon the ephors and the council of elders (Gerousia) forced him to take a second wife, who produced a son and successor, Cleomenes I. But shortly after Cleomenes' birth, the first wife, who was hitherto childless, produced three sons: Dorieus, who died in a failed attempt to plant a colony in Sicily, Leonidas, and Cleombrotus. After Cleomenes lost his throne around 490 BC, probably shortly before the battle of Marathon in that year, Leonidas succeeded, having married Cleomenes' only child, Gorgo.

In 480 BC the Persians, whose expeditionary force had been defeated at Marathon ten years earlier, launched a massive invasion: their army, led by Xerxes himself, crossed the Hellespont by pontoon bridges and advanced through northern Greece while the navy, carrying supplies, cruised along the coast. The Greek states that were willing to resist allied themselves under Spartan leadership, and first attempted to make a stand at the vale of Tempe in Thessaly, but the commanders of the joint land and naval force that was dispatched there withdrew once they realized the position was indefensible. A second attempt was made at the pass of Thermopylae, where the road between the Malian Gulf and Mount Kallidromos was much narrower than today. Leonidas was sent there with an allied force totalling perhaps 7,000 foot-soldiers, including 300 elite "Spartiates" of the royal bodyguard, and a comparatively large naval contingent was sent to Artemisium at the northern tip of the island of Euboea to prevent any joint operation between the Persian fleet and the army on land.

However, Leonidas' force was unaware that there was another path bypassing Thermopylae along the ridge of Kallidromos, known locally as the Anopaea. When they learned about it on their arrival, many, particularly those from the region south of the

isthmus of Corinth, where the allies from the Peloponnese were building a defensive wall, wanted to withdraw. But Leonidas quelled the panic and assigned the 1,000-strong contingent from Phocis, who knew the terrain, to guard the Anopaea.

For two days the Greeks warded off all Persian efforts to force the pass. But then a traitor, whom the Greeks identified as Ephialtes from neighbouring Malis, offered to lead the Persians along the Anopaea, and Xerxes assigned his elite corps of 10,000 "Immortals" to the manoeuvre. At dawn on the third day Leonidas learned from his scouts that the Persians were circling at his rear by the Anopaea. He sent home the allied contingents from the states to the south of the isthmus of corinth, while he himself, with his 300 Spartiates, and 700 Thespians and 400 Thebans from north of the isthmus, secured their retreat by remaining behind in the pass and fighting to the death. The Greek fleet at Artemisium, which had engaged the Persian navy timidly while the battle at Thermopylae was taking place, retreated to Salamis off the coast of Attica as soon as it learned of the disaster.

Leonidas' decision to stay and fight was a rational choice made to save the bulk of his army, but he and his brave "Three Hundred" entered mythology almost immediately. Herodotus, who published his *Histories* around 425 BC, reports that Sparta had received an oracle from Delphi that said that either Sparta itself would be destroyed or a Spartan king would perish, and Leonidas, knowing the oracle, chose to save his state by his death. Thermopylae became the chief building block of the Spartan mystique of utter devotion to duty, which was epitomized by the couplet that Sparta engraved on the monument erected where Leonidas' Spartiates made their last stand: "Go, stranger, to the Spartans tell / That here, obeying their commands, we fell." More than half a century later, in 425 BC, when a force that included some 120 elite Spartiates surrendered to the Athenians at the bay of Navarino during the Peloponnesian War, Greece was amazed that they did not die fighting. Leonidas himself became the paradigm of the soldier who obeys orders without question.

JAMES ALLAN EVANS

See also **Persian Wars**

Biography

Born *c.*530 BC, Leonidas became king of Sparta after the death of his half-brother Cleomenes in 490. In 480 he attempted to hold the pass of Thermopylae against the Persian army with a hand-picked force of 300 Spartiates and 1100 Boeotians. Their fight to the death immediately entered mythology. His memory has regularly been invoked ever since as the model of resistance to tyranny.

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LESBOS

Aegean island

Physical remains and the Homeric poems associate Bronze Age Lesbos with Anatolia and the Troad; despite a tradition of Greek migration two generations after the Trojan War, Greek artifacts are rare before the 10th century BC. After 900 BC Anatolian connections continued in personal names (Myrsilos), cult (Cybele), and material culture, but Lesbos' cities (Antissa, Arisba, Eressos, Methymna, Mytilene, Pyrrha) were inhabited by speakers of a Greek dialect (Aeolic) and no allophone ("Pelasgian") population remained. In the 8th century Aeolian Greeks established settlements on the coasts opposite Lesbos and in the Troad; by 700, except for Assos, they were controlled by Mytilene, and Methymna had enslaved Arisba. Inter-city hostility became a constant of Lesbian history.

Mytilene's dependencies in Asia Minor, outposts in Pontus, Thrace (Aenus), and Egypt (Naucratis), good relations with the Lydian monarchy, and flourishing trade in oil and wine, made Lesbos a major cultural force from 700 to 500 BC. Among their accomplishments were close-fitting polygonal masonry (*Lesbia oikodome*), "Aeolic" capitals with vertical volutes (linking Phoenician models with later Greek orders), and lyric poetry, associated with the cult of Orpheus at Antissa, the home of Terpander (676 BC); Mytilenean hegemony may explain why Terpander and Arion of Methymna worked in mainland Greece. Around 600, Sappho and Alcaeus wrote for and about Mytilene in Lesbian dialect, which was used in inscriptions as late as the 3rd century AD; Lesbian accentuation is maintained in modern place-names (Yéra for Hierá). Besides their poetic influence, Sappho and Alcaeus illustrate much about archaic Lesbian society. Sappho shows how much less restricted women's roles were on Lesbos than in democratic Athens, more like Lydia, where women chose their own husbands; the pejorative use of terms derived from "Lesbos" for sexual behaviours reflects male hostility to such freedom as much as to Sappho's sexuality. Mytilenean politics, as presented by Alcaeus, provided a paradigm of the relationship between aristocracy and tyranny. Mytileneans, with ties to Sardis, may have been the first Greeks to use the Lydian term *tyrannos* for their rulers; it was applied also to the constitutional rule of Pittacus around 590 BC.

After Persian domination the Lesbian cities joined the Delian League in 479, to which Mytilene and Methymna provided ships rather than tribute. In 428 Methymna and Tenedos denounced to Athens Mytilenean plans to unify Lesbos by force; the punishment of Mytilene's subsequent revolt became an eloquent symbol of Athenian imperialism.

In the 4th century Aristotle conducted primary research on Lesbos. In the Hellenistic period Methymna and Eressos were Ptolemaic but Mytilene remained independent. Methymna was an early ally of Rome, but Antissa was destroyed by Rome in 169 BC for supporting Macedonia, and Mytilene, the most persistent supporter of Mithradates of Pontus, was conquered by Rome in 80.

In 62 BC Pompey gave Mytilene back its independence as a favour to his friend, the historian Theophanes. Mytilene developed a special relationship with Rome; several Mytileneans, including the descendants of Theophanes, the sophist Potamon,

and the poet Crinagoras, had significant careers in the capital, while important Romans, notably Agrippa and his family, resided in, and were honoured by, Mytilene.

The pastoral novel *Daphnis and Chloe* is part of this relationship. Set on Lesbos by an author with a Roman name, its account of the island's cults had special resonance for descendants of Theophanes, who led a Dionysiac cult near Rome. Longus' assimilation of the pastoral form to that of the love romance and his choice of fertile Lesbos as its setting affected all subsequent pastorals.

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LIBANIUS AD 314–*c.*393

Teacher of rhetoric

Libanius was born at Antioch, where he belonged to one of the leading curial families. He was the most highly esteemed teacher of rhetoric of his time, and attracted pupils from all over the Near East. Yet he spent most of his life teaching in his native city and died there. Libanius wrote in an elaborate Atticizing Greek that was admired and imitated for most of the Byzantine period. In consequence a large part of his literary output survives: almost 1600 letters, 64 orations on topical questions, 51 declamations, and numerous rhetorical exercises. We therefore know Libanius better than all but a very few individuals of antiquity, and his writings are an almost inexhaustible source of information about social life, politics, administration, entertainments, and education in the 4th century AD; thanks to Libanius, Antioch is by far the best-known provincial city of late antiquity.

Libanius was above all a traditionalist. He was an Atticist in the tradition of the Second Sophistic. His vocabulary, syntax, and sentence structure are based on those of Classical Athenian authors. He was an admirer of Aelius Aristides (AD 117–c.189), but he was thoroughly familiar with the Classical authors themselves, above all Homer, Demosthenes, and Thucydides. References and allusions to Plato also occur frequently in his writings. He pays respect to the wisdom of Plato the philosopher, but what he adopted for his own use was Plato's mastery of language. Above all he used him as a source of rhetorical comparisons and analogies. Socrates was a great hero, a kind of pagan Christ. He does not appear to have used Aristotle at all. Unlike his contemporary and admirer the emperor Julian the Apostate, Libanius seems to have had very little use for the philosophy either of the Classical thinkers, or of contemporary Neoplatonists. Declamations with an Athenian setting show that Libanius had a very detailed knowledge of the history, institutions, and customs of classical Athens.

Libanius' writings contain very few allusions to historical events later than the reign of Alexander the Great. Though he – like most free inhabitants of the empire by the 4th century – was a Roman citizen, and though his life was shaped by decisions of Roman emperors and officials, he showed no interest whatsoever in things Roman, seeing Roman and Latin law as the dangerous rivals of the Greek rhetorical education, based as it was on close familiarity with Classical Greek authors, which it was his life's work to maintain and propagate. In the realms of politics he appreciated the need for an emperor and empire to keep off barbarians and to uphold law and order within the borders, but his personal allegiance was to his birthplace rather than to the empire. More particularly he mistrusted Constantinople as an upstart that was draining human and material resources from cities such as his own Antioch. Libanius was a pagan and made no attempt to hide his paganism. But his Hellenic educational ideal had a strong moral component not very different from the moral teaching of Christianity, and his correspondents included Christians as well as pagans. Libanius was honoured by the Christian emperor Theodosius I. Christian and pagan parents alike sent him their sons to educate. John Chrysostom and Theodore of Mopsuestia were almost certainly his pupils; Basil and Gregory of Nazianzus are likely to have been.

The life and career of Libanius thus illustrate the peaceful coexistence of Christians and pagans in an age better known for religious conflict; and his work as a teacher actively contributed to the assimilation of Hellenic traditions into a Greek Christian civilization.

J.H.W.G. LIEBESCHUETZ

See also **Rhetoric**

Biography

Born at Antioch in 314, Libanius was educated in Athens and taught rhetoric at Constantinople and Nicomedia. He declined the offer of a chair of rhetoric at Athens but accepted one at Antioch where he remained for most of his life. His pupils included many famous men. His surviving works include letters, orations, declamations, and rhetorical exercises. His prose style was much admired by the Byzantines. He died at Antioch *c.*393.

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LIBRARIES

Libraries in the ancient Greek world were an important medium for the preservation and storage of literature. Since books had to be copied individually and by hand, many less popular books were fated to survive in the long term only in the collections of one or two libraries or of the occasional enthusiastic bibliophile.

Private book collections began to exist as soon as written literature multiplied, certainly by the 6th century BC. A book trade must have emerged soon after, dealing in second-hand copies. Booksellers may also have provided – speculatively, or to order – new copies of the latest writings: certainly they did this in later periods. At Athens, already in the 5th century BC, a distinct part of the city market was occupied by booksellers. Quite soon two types of libraries emerged to meet the needs that private collections and the book trade were unable to satisfy.

Schools, mainly philosophical and medical, needed to have permanent access to works that were relevant to the teaching and research they conducted, especially texts compiled by their own teachers. By the 4th century BC we know of two such school libraries. The books now known as the Hippocratic Corpus (anonymous medical texts by many authors, traditionally ascribed to Hippocrates himself) were evidently the nucleus of the working library of the Hippocratic school at Cos – broad-mindedly including several works that adopt the theories of the rival school at Cnidus. The contents of the library of the Peripatetic school led by Aristotle, and after him by Theophrastus, also partly survive, in the form of research texts attributed to these two philosophers themselves, though in several cases they are evidently not the actual authors. This library was bequeathed outside the school by Theophrastus, was not available to later Peripatetics, and was nearly lost for good; its history is outlined by Strabo (*Geography,* 13. 1. 54).

True public libraries were needed as soon as the range of texts that people wanted to read grew to the point at which a book dealer could not find or supply them all. If it is true that Pisistratus, tyrant of Athens, established a public library, this need must have been felt as early as the mid-6th century BC. The Latin author Aulus Gellius (*Attic Nights*, 7. 17. 3), the only source of information on Pisistratus' library, adds that it was seized and taken to Persia when Xerxes invaded Greece.

But little is known for certain of libraries before Alexander's time. It was under the Hellenistic kings, with their need to establish and assert Greek culture across the Near East, that major public libraries appeared. The Library at Alexandria (closely associated with the Museum), founded by Ptolemy I Soter (reigned 305–283/82 BC), was one of the great libraries of all time, classified in accordance with a system developed by Aristotle and eventually with a stock of 700,000 papyrus rolls, according to Gellius. Ptolemy persuaded the Athenian state to lend the archive copies of Classic Athenian drama for copying. Having received them, the Alexandrian library kept the old manuscripts and sent new copies back to Athens. The 3rd-century BC poet Callimachus worked at the library and was credited with the authorship of the *Pinakes*, "Tables", which were a thematic listing of Greek writings up to his time and a subject catalogue of the Alexandrian library: sadly, only a few fragments survive.

A second great library of the Hellenistic period was founded under the patronage of the Attalid kings of Pergamum. It had grown to 200,000 volumes when Mark Antony seized it and presented it to Cleopatra. From the excavations of Pergamum some details of the floor plan of this library can be reconstructed: three large rooms, with wooden bookcases, held the manuscripts; a fourth room was apparently for readers' use; and there were colonnades that provided an additional location for reading and discussion. Bookcases for papyrus rolls took the form of sets of pigeon holes: rolls had labels hanging from one end, which could be read without removing the roll from its place.

The Seleucid kings also had an important library at Antioch. Two further Hellenistic libraries, that of the kings of Macedon at Pella and that of Mithradates, king of Pontus, were both taken to Rome as booty by victorious generals. The great library at Alexandria was burned (though not completely destroyed, it is thought) by Julius Caesar's troops in 47 BC. Rome's own public libraries – the first was founded in 39 BC – were probably better stocked with Greek than with Latin literature.

In general, Greek libraries continued to flourish under the Roman empire, and inscriptions and excavations give us occasional clues regarding their operation. They were naturally to be found at centres of Greek learning. The emperor Hadrian founded a magnificient library near the Agora in Athens in AD 131.

Constantinople, the new capital of the Roman empire, eventually became the focus of Greek cultural life. Here it was that Greek literature survived, in libraries and private collections, through medieval times. The emperor Constantius II founded a public library there. Julian added his own book collection to it in AD 362, and it survived until 726.

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See also **Archives; Books and Readers**

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LINEAR B

The oldest surviving written record of the Greek language

Linear B is the name given to the script that records the oldest known form of Greek (dated to the 15th to 13th centuries BC) and therefore is most probably the earliest evidence of the Hellenic people. It was used in the royal palaces of Bronze Age Crete and mainland Greece as a means of recording the transactions of the palace economy and administration until the destruction of the Mycenaean palaces. The first Linear B script, written on a clay tablet, was found at Knossos in 1878, and this discovery among other things motivated Arthur Evans, a British archaeologist, to carry out a systematic excavation of the site. Evans's excavations at Knossos from 1900 revealed a palace complex older than the palace at Mycenae excavated by Heinrich Schliemann, and it no longer seemed appropriate to label the civilization of Bronze Age Crete "Mycenaean". Evans named the newly found civilization of Crete "Minoan" after the legendary king Minos. He found three distinctive writing systems at the palace which he named Hieroglyphic (or Pictographic), Linear A, and Linear B, according to their physical appearance. Soon Linear B inscriptions were found also at Pylos and other Mycenaean palaces on the mainland, but because they were assumed to be Minoan they were taken to be evidence of Minoan domination of mainland Greece. However, in 1952 Linear B was deciphered by Michael Ventries, a British amateur, and the language was found to be an old form of Greek. The older hieroglyphic and Linear A inscriptions are still undeciphered, but are thought to represent non-Greek languages.

The Linear B inscriptions were either scratched on clay tablets, labels, and sealings, which were subsequently sundried, or painted on large clay vessels. Of the clay tablets, some are called "page" type and others "palm-leaf" type, after their respective shapes. The page type can measure up to *c.*24 × 11 cm, whereas the palm-leaf type measures only up to *c.*18 × 4 cm. There is a sort of hierarchical system among the different classes of clay documents. At least some clay sealings appear to have functioned as delivery notes of goods to various administrative centres. Palm-leaf-type tablets recorded shorter entries and page-type longer ones, and some entries on palm-leaf-type tablets were found to be collected and duplicated on page-type tablets. Clay labels were attached to the containers of sets of tablets to function as indexes. In addition, since the surviving tablets refer only to "this year" and "last year" with no reference to earlier years, it is likely that they were only temporary records for the particular year and that longer-term records were kept on some more perishable material. The inscriptions painted on pottery appear to indicate the places of origin or the producers of the content, most probably wine or olive oil. Most Linear B inscriptions come from Knossos (*c.*5600), Pylos (*c.*1200), Thebes (*c.*420), Mycenae (*c.*90), and Tiryns (*c.*80), but a small number of inscriptions have been found also at Chania (tablets and jars), Midea (a sealing), Orchomenus, Gla, Vlicha, Kreusis, Eleusis, Mameloukos Cave, Armenoi, and Mallia (jars).

The clay tablets show the last stage of the script in use, since they were preserved by being baked in the fire that destroyed the palaces which housed them. The dating of the inscriptions is a controversial matter. Those from Knossos are dated to Late Minoan IIIA2 period (*c.* 1375 BC), while those from mainland sites are dated to Late Helladic IIIB (*c.* 1200 BC). The tablets from Chania in west Crete, however, are dated to Late Minoan IIIBI (*c.*1275–1250 BC), which brings the Cretan and mainland scribal traditions closer together. The inscribed pottery on the other hand dates from the 15th to 14th centuries BC, which shows that Linear B was invented in the 15th century BC or possibly earlier.

The Linear B script consists of syllabic signs (87), ideograms (*c.*160), and numerals (1 to 10,000). It was derived from Linear A, a script probably devised for a non-Greek language, and is not well suited to the writing of Greek. All the syllabic signs stand for open syllables, i.e. single vowels standing on their own or syllables ending in a vowel, most of which consist of one consonant followed by one vowel. This is not a convenient feature for writing Greek which contains many words with consonant clusters and final consonants. When a syllable comprises v(owel) + c(onsonant) or c + v + c, the consonant which closes the syllable is usually omitted (e.g. *te-me-no* for *temenos; ka-ko* for *khalkos*), whereas when a syllable consists of c + c + v, it is usually written out as two syllables, the first containing the vowel of the succeeding syllable as a "dead" vowel (e.g. *ko-no-so* for Knossos). Apart from a small number of special signs such as *ha, au, dwe,* and *pte,* the script can represent only 5 vowels and 12 consonants (transcribed as *d, j, k, m, n, p, q, r, s, t, w, z*). This increases the difficulty in representing Greek. For example, the transcriptions *a, e, i, o, u* can stand for short, long, aspirated (h-), and unaspirated vowels; the transcriptions *ka, ke, ki, ko, ku* can stand for k-, kh-, or g-; *pa, pe, pi, po, pu* can stand for p-, ph-, or b-; and l- and r- have the same set of signs in common. The resulting writing is not always clear. What provided the most decisive evidence for the successful decipherment was its occasional practice of adding ideograms, which are often visually recognizable, to the words spelt in syllabic signs, such as "horse" and "tripod". Despite the incomplete nature of the writing, there is sufficient evidence for identifying many dialectal features which show it to be most closely related to the Classical Arcadian and Cypriot dialects.

The contents of the Linear B tablets are mostly lists of people, animals, and goods with short statements, but they do reveal many aspects of palace economy and administration. We can gather from them, for example, the administrative division of the territory, movement of people and livestock, land tenure, offerings to the gods, food rations for workers, production of wool and textiles, production of scented oil, and storage of vessels, utensils, weapons, armour, and chariots. It also appears that the man called *wanax* ("lord"; *anax* in later Greek) was the most powerful person at each palace, and in the Mycenaean pantheon the most prominent divinity was a goddess (or a group of goddesses) called *Potnia* ("Lady"), surrounded by some familiar names such as Zeus, Hera, Poseidon, and Dionysus as well as others totally unknown. Some tablets

from Pylos seem to refer to preparations for an attack expected from the sea, offering an interesting glimpse of the last days of the Mycenaean palaces.

Literacy disappears from most of the Greek world after the demise of Linear B until the introduction of the alphabet in the early part of the first millennium BC. However, a sister script known as Cypro-Minoan, also derived from Linear A, survived in Cyprus, and eventually evolved into the Cypriot Syllabary which remained in use into the Classical period.

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See also **Language; Literacy; Mycenaeans**

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LITERACY

The earliest known Greek script is Linear B, an adaptation of the Cretan Linear A to accommodate the sounds of Greek, which was devised, perhaps by Minoans rather than by Mycenaeans, at some unknown date (the oldest surviving examples are probably from the late 14th century BC). Although a few Linear B symbols are found on pottery, it seems to have been primarily a secretarial tool for recording palatial inventories of personnel and property on unbaked clay tablets. (There is no scholarly consensus as to whether the "baleful signs" in a folded tablet mentioned in the *Iliad* (6. 168–69) refer to a Greek lexigraphic script, just possibly Linear B, or semasiographic writing or whether they are simply a Near Eastern element imported into the tale of Bellerophon.) Mycenaean society was, therefore, almost exclusively illiterate, a fact which makes more intelligible the Greeks' complete loss of the skill of writing after the collapse of Mycenaean institutions in the 12th century. Knowledge of their past was preserved during the Dark Age (*c.* 1200–700 BC) by oral means, most notably in the material that lies behind the Homeric poems.

An alphabet based upon the Phoenicians', but with the adaptation of certain signs to symbolize vowels, was created probably through mercantile contacts and possibly as early as the late 9th century (the earliest known description dates from *c.* 740 BC). Despite the optimism of many modern scholars, this cannot be proved to have led to widespread literacy throughout the Greek world, even at the most elementary level.

Erection in public places of marble columns inscribed with law codes, first known from the 7th century, did indeed make them available to all, but citizens could rely on intermediaries to read them. Ostracism similarly need not have depended upon common literacy, as the illiterate could have names written for them (a cache has been found of 191 *ostraka* all bearing the name of Themistocles and written in only 14 separate hands). Poetic texts were written down at least as early as the 7th century, but books were always expensive and even in the second half of the 5th century BC Euripides was considered strange for possessing a few papyrus rolls. Schools, though not the only means of transmitting literacy, seem to have arisen first only in the second half of the 6th century (the earliest specifically attested belong to the early years of the 5th) and were never universal. Society remained largely oral, even reading being performed aloud. Although written records of Olympic victors were reputedly made from 776 BC and in the late 6th century Attic demes began to keep records of their members, until at least the 4th century BC legal proceedings were carried out almost exclusively orally, and commercial deals were made by verbal agreements of the parties concerned, the attestation of witnesses, when necessary, being unwritten. There was, moreover, even a distrust of the written word as being more dishonest than the spoken (Isocrates, *Epistles,* 1. 2–3), and Plato, whose inspirational hero Socrates wrote nothing, argues (if *Epistles*, 7 is accepted as genuine) against writing down truly serious things for fear of misuse (344*c*), and in the *Phaedrus* rightly points out (274e–275b) that literacy militates against memorization.

Although illiteracy seems to have involved no social stigma and created no economic disadvantages even to members of the elite during the Archaic age (*c.*700–479 BC), writing and reading (presumably the more common, especially of lapidary texts) became less unusual accomplishments particularly in the last few decades of the period. They were not confined to the upper classes: inscriptions on vases began as early as the second half of the 8th century and became ubiquitous in the 6th; from 593/92 there survive at Abu Simbel graffiti made by Greek mercenaries; curse tablets first appeared in the 6th century; and even though the earliest known exchange of historical letters in Greek (those of Polycrates of Samos and king Amasis of Egypt) dates only from the 520s, there has been discovered on the island of Berezan, in the estuary of the Bug near Olbia, from only some 20 years later a letter in Milesian Ionic from a private individual (admittedly poorly written, on lead, and probably not even by the sender). Sappho and her circle in late 7th-century Lesbos, though probably exceptional, show that literacy was not exclusively a male preserve. Nevertheless, W.V. Harris concludes that in the Archaic Age "it would be astonishing if as much as 10 per cent of the population as a whole was literate" in any way.

In the Classical period (479–323 BC) there was clearly a great disparity in literacy between city and country, but not necessarily between large and small cities (the minor city of Mycalessus in Boeotia possessed at least three schools in 413, although their type is not mentioned). Most of the known evidence is from Athens, Pericles' "School of Hellas", and

thus may be misleading for Greece as a whole. Nevertheless, although Sparta with its need for permanent military preparedness placed little emphasis upon reading and writing, there is evidence that Athens was not atypical (except in its fondness for monumental public inscriptions which need not, however, reflect either a high rate of literacy or democratic policies). Accepting the leadership of the Delian League in 478/77, Athens needed to keep written records (partially surviving) of members' contributions; from 425 are attested both the earliest written manumission and the earliest written litigant's pleading and from about that time, or possibly a little earlier, the first political pamphlet (''The Old Oligarch''); in the last quarter of the century booksellers began to appear; in the last decade a law was passed prohibiting the use of unwritten laws and a state archive was established; by *c.*360 written service and apprenticeship contracts and large loan agreements had appeared and written testimony was required in court; *c.*330 standard texts of the tragedians were placed in the state archives.

During this period literacy for the whole population, including slaves (some of whom were literate), probably reached little more than 10 per cent, but few urban, adult, free males could be expected to be entirely ignorant of letters. The very word *agrammatos* came into existence and signified both ''illiterate'' and ''uncultivated''; Euripides' lost *Theseus* contained a scene whose appreciation was possible only through a knowledge of the shapes of letters of the alphabet; Xenophon in his *Oeconomicus* takes it for granted that not only the landowner Ischomachus but also his wife are literate; Aristotle claims (*Politics*, 1338a15–17) that literacy is useful for ''business, running the household, learning and many civic activities''.

In the Hellenistic period (323–31 BC) literacy among urban freeborn men reached perhaps 40 per cent. From one area, Egypt, there survive for the first time written ephemera in the form of documents and letters of minor officials and common people, although it is somewhat hazardous to extrapolate from here to the rest of the Greek world. Clearly paperwork (on papyrus) was increasing greatly and was being used for even fairly trivial purposes. However, the many hundreds of documents (at least 1500 from the Hellenistic, Roman and early Byzantine periods) that explicitly mention the illiteracy of one or more of the parties suggest that the majority of male farmers and artisans were unable to write, and that only a very tiny proportion of their wives could. For the elite, however, literacy was now a sine qua non, and institutional libraries, initially probably modelled on Aristotle's at the Lyceum, were established, most notably at Alexandria and Pergamum.

Despite growing bureaucratization and interest in buying books, evident from papyrus finds in Egypt, the percentage of literate Greeks perhaps declined slightly under Roman rule (Harris believes that the peak had been passed by the mid-2nd century BC), as certainly did that of all inhabitants of the Roman empire after *c.*AD 200. It is notable that a village clerk in Egypt was still ineptly practising his signature formula while in office at some point between AD 184 and 187; and that in AD 263 a rich woman considered her literacy sufficiently exceptional to be ground for requesting privileges from the prefect of Egypt.

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See also **Archives; Books and Readers; Education; Libraries**

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LOGIC

Logic, the study of valid inference, was developed by Greek philosophers as a result of their interest in arguments of every kind, not only those used in philosophy, but also those used in mathematics, in politics, or in the lawcourts. The first technical term for what we now call ''logic'' was used by Aristotle, and this was ''dialectic''; the first occurrence of the ancient term ''logic'', meaning the discipline of correct reasoning, is to be found in Aristotle's commentator Alexander of Aphrodisias.

Aristotle is traditionally considered to be the founder of logic. At the end of his *Sophistical Refutations* he himself claimed with some pride to have been the first to conceive of a systematic treatment of correct inference as such and to formulate its rules. But Aristotle was certainly not the first to be concerned with valid reasoning. Before Aristotle philosophers knew how to argue and taught others how to argue; for they were mainly interested in producing arguments to defend their theses or to refute those of their opponents. What is more, already before Aristotle philosophers were aware, and availed themselves, of certain abstract patterns of inference which would ensure the conclusiveness of arguments constructed according to them. Thus it is clear from our sources that already Zeno of Elea in his paradoxes made use of argument patterns like that of the reduction to the impossible. Similarly Plato, in the second part of his dialogue *Parmenides,* obviously inspired by Zeno, constructed an elaborate argument, following a complex formal pattern which explicitly is said to be applicable to any other philosophical subject or discussion. Quite generally, even if Plato might have been averse to the study of reasoning for its own sake, his dialogues present argument systematically set forth in such a way as to make their validity apparent, but also to invite reflection on their validity, rather than simply on the truth of their premises and conclusions. For instance, given Plato's and his followers' concern with the method of division, one easily sees how one would come to formulate general principles of the kind ''if A is a genus of B, and B is a genus of C, then A is a genus of C''. But to develop such a body of general principles is not yet to provide a formal account of valid

inference, an account which identifies what precisely it is about an inference which makes it valid.

Aristotle's logical writings were later known under the collective title *Organon*, i.e. an instrument of philosophy, for they were regarded as the works to be studied first, since it is by means of logic that we come to have the knowledge about reality and human behaviour which constitutes philosophy. But not all of the six treatises of the *Organon* deal with logic in the modern sense. The first of these works, namely the *Categories,* classifies the different types of predicates and is often interpreted as a metaphysical or dialectical treatise, rather than as a logical one. Those editors who placed it in the *Organon* thought that it dealt with the terms of propositions of the form ''A is B''. The *Topics* discusses dialectical arguments of the kind used in the dialectical exercises which formed an important part of the philosophical training in Plato's Academy. The *Sophistical Refutations* is an appendix to the Topics and considers logical fallacies. The *Posterior Analytics* investigates the special requirements that scientifically demonstrative arguments have to satisfy beyond being formally valid. Hence, Aristotle's main contributions to the discipline of logic in the modern sense are to be found, first, in his short treatise *On Interpretation,* which presents his theory of the structure of propositions, their truth conditions, and the logical relations between them, in particular their contradictoriness, and their contrariety; and second, in the *Prior Analytics,* in which Aristotle expounds his theory of the syllogism, by considering different kinds of arguments according to their forms.

It is important to note that in his logical writings Aristotle was the first to use letters (''A'', ''B'', ''C'') to stand in place of the terms of propositions (''white'', ''animal'', ''man''). This Aristotelian innovation is regarded by modern logicians as one of the crucial steps in the history of logic, because it implies an awareness of the distinction between logical form and logical matter, and also marks a significant simplification in the representation of the form of arguments. More specifically, in Aristotle's *On Interpretation* four kinds of proposition are distinguished: universal affirmatives, of the form ''A holds of every B'' (e.g. ''white holds of every man''); universal negatives, of the form ''A holds of no B'' (e.g. ''white holds of no man''); particular affirmatives, of the form ''A holds of some B'' (e.g. ''white holds of some man''); and particular negatives, of the form ''A does not hold of some B'' (e.g. ''white does not hold of some man''). A convention going back to the Middle Ages marks each of the four kinds of proposition with a vowel, and thus they may be abbreviated as ''AaB'', ''AeB'', ''AiB'', ''AoB'', respectively. The universal affirmative is contrary to the universal negative and contradictory to the particular negative, whereas the particular affirmative is contrary to the particular negative and contradictory to the universal negative.

It is next in the *Prior Analytics* that Aristotle presents his theory of the syllogism, by any account one of the greatest achievements in the history of logic. He starts with his standard definition of a syllogism as an argument in which certain things being posited something different from the things posited comes about by necessity, in virtue of the fact that the things posited are so. Hence three distinct propositions are involved in every syllogism, two premises and a conclusion, and they must be related in the appropriate way to be specified. To begin with, the two premises must have a term in common, the so-called ''middle term'', and the two terms of the conclusion, i.e. ''the extremes'', must each appear in one of the premises. Thus the three propositions of any syllogism exhibit altogether precisely three terms, and the premises may, as a pair, show any one of the following structures: (1) A of B, B of C; (2) B of A, B of C; (3) A of B, C of B. These three structures determine the three figures of Aristotelian syllogistic; a syllogism belongs to the first figure if its premisses exhibit structure 1, to the second figure if they exhibit structure 2, and to third figure if they exhibit structure 3. In later times the various forms in which syllogisms may be constructed within the figures came to be called ''moods''. Aristotle distinguishes 14 valid moods, which are commonly known by their medieval names. For instance, the first valid mood of the first figure is called Barbara and runs as follows: ''A holds of every B; B holds of every C; therefore A holds of every C.'' A typical Aristotelian example in this mood would then be: ''Mortal holds of every animal; animal holds of every man; therefore mortal holds of every man.'' All the valid moods of the first figure are said to be ''perfect'', because their validity is self-evident. The syllogisms in the other figures are ''imperfect'', but they can become perfect, inasmuch as they can be reduced to first-figure syllogisms whose validity is self-evident. Aristotle employs three methods of perfection or reduction, which means three ways of proving that a given syllogistic form is valid; namely, transformation by conversion, reduction to the impossible, and exposition. In this way Aristotle presents his syllogistic as a system of deductive inference in which the 14 valid moods of the first, second, and third syllogisms can be reduced to the four moods of the first figure; thus these four syllogistic moods constitute the axioms of the system. The axiomatic character of Aristotle's syllogistic bears clear signs of influence by the developments in the mathematical sciences of his time, and its ingenuity and elegance have often been praised even in our times. Aristotle also made a beginning in what we nowadays call modal logic, i.e. the study of propositions containing modal operators like ''necessary'' or ''possible'', but his treatment of modal logic in the *Prior Analytics* proves to be unsatisfactory and presumably in the end incoherent.

Some of the Peripatetics followed Aristotle's interest in logic and tried to elaborate further his logical doctrines. Theophrastus, in particular, is said to have been chiefly concerned with the development of certain aspects of Aristotelian logic, but unfortunately none of his logical works has survived. From later authors we learn that he spent some time on an area of logic that was only briefly mentioned by Aristotle, namely syllogisms ''from a hypothesis''. These are syllogisms whose first premiss at least is a ''hypothetical'' proposition, i.e. a negated conjunction or a disjunction or a conditional. In the works of Aristotle's commentators the syllogisms with such premises are called ''hypothetical'' syllogisms, and are contrasted with the standard Aristotelian syllogisms which are called ''categorical'' syllogisms. It seems, though, that Theophrastus' account of hypothetical syllogisms never acquired the character of a fully fledged systematic logical theory: that is, a theory of the kind which the Stoics were to produce later on.

In the Hellenistic period, largely independently of Aristotle's term ''logic'', the logic of propositions, mainly hypothetical syllogistic, as opposed to categorical, was advanced to its highest level. Its beginnings may be traced back to philosophers like Diodorus Cronus and Philo of Megara, who were not only

concerned with the study of logical puzzles or paradoxes, like the Liar and the Sorites, but also put forward original theories about the logical modalities and the truth conditions of conditional propositions. But the logic of propositions was finally systematized by the Stoics, who in Chrysippus had a logician of the highest calibre. His numerous works unfortunately are almost entirely lost, and we need to reconstruct Stoic logic from relatively few and not always reliable fragments. Stoic propositional logic was based on the connectives "if ... then" for conditionals, "either ... or" for exclusive disjunctions, "both ... and" for conjunctions, and the prefixed negative "it is not the case that". The Stoics used ordinal numbers ("the first", "the second", "a", "b") to stand in place not of terms but of simple propositions. Their hypothetical syllogistic, like Aristotle's syllogistic, also was developed as an axiomatic system. It was grounded on five types of "indemonstrable" arguments, i.e. elementary syllogisms the validity of which is in no need of demonstration, since it is self-evident, and four rules, the so-called themata, by the use of which all other syllogisms were claimed to be reducible to the indemonstrables. Hence these rules allow one to establish the formal validity of non-indemonstrable arguments by "analysing" them in one or more steps into one or more indemonstrable arguments. The form of the standard five indemonstrables was expressed as follows: (1) "If the first, then the second; but the first; therefore the second." (2) claimed. "If the first, then the second; but not the second; therefore not the first." (3) "Not both the first and the second; but the first; therefore not the second." (4) "Either the first or the second; but the first; therefore not the second." (5) "Either the first or the second; but not the first; therefore the second." A typical Stoic example of the first indemonstrable is: "If it is day, it is light; but it is day; therefore it is light."

The two systems of logic – term logic and the logic of propositions – were considered by the Peripatetics and the Stoics as rivals, rather than as complementary, each supposed to cover all formally valid arguments. In late antiquity, however, we find the attempt to combine the two traditions of the categorical and the hypothetical syllogistic into one logical system. The commentators on Aristotle's logical works, such as Alexander of Aphrodisias, Ammonius, and Philoponus, integrated into their works many Stoic elements, including a doctrine of hypothetical syllogisms. Finally, Galen made a more successful attempt to synthesize the two systems in his *Introduction to Logic,* in which he also deals with relational arguments which are not satisfactorily accounted for either by Aristotle or by the Stoics; that is, arguments like "A is greater than B; B is greater than C; therefore A is greater than C." In general, however, logicians in this period made no substantial logical discoveries, though there are in the writings some terminological innovations. For the most part they stated expansively what Aristotle had stated briefly and elliptically. On the other hand, the logical works of this period preserve historical information, which is invaluable.

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See also **Dialectic; Philosophy**

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LONGUS

Novelist of the 2nd or 3rd century AD

Longus was the author of *Daphnis and Chloe,* a fine but untypical example of the ancient Greek novel, probably dating from the end of the 2nd or beginning of the 3rd century AD. In outline the story follows the romantic stereotype, narrating the love and adventures of its eponymous heroes, culminating in marriage, and even retains some of the common motifs of the genre, such as pirates, shipwreck, and unwanted rivals. *Daphnis and Chloe* is unique, however, in its pastoral setting: although they turn out to be the exposed children of urban aristocrats, its hero and heroine grow up as goatherd and shepherdess in the countryside of Lesbos, of which Longus was possibly a native. Despite its topographical plausibility, however, the setting is not realistic: Longus draws ostentatiously on the pastoral poetry of Theocritus (not least for Daphnis' name) and, probably, of Philetas of Cos, after whom one of the most important secondary characters is named. As befits the Lesbian setting, the poetry of Sappho also provides a number of plot elements, notably in an episode where Daphnis fetches Chloe an apple from the highest branches of a tree. The urban reader, in effect, is invited to take a holiday in a literary landscape of bucolic fantasy and turn a blind eye to the hardships of real agricultural life.

Elements of travel and adventure of the kind found in other ancient novels are miniaturized and parodied. Raiding pirates take Daphnis only a few hundred metres before their ship is capsized by performing cows; war nearly breaks out between Mytilene and Methymna after a goat gnaws through a makeshift mooring-rope. This lack of physical movement is related to Longus' most profound innovation: his treatment of love, which he presents as a developing and maturing condition. His lovers begin as completely ignorant of Eros, and only gradually become aware of their feelings for one another. They need to be educated in the "name and deeds of love", first by the old herdsman Philetas, who in lyrically elevated prose identifies Eros as the motive power of all creation, and then by a benevolently predatory sex-starved neighbour, Lycaenion, who gives Daphnis a practical tutorial in the woods. Childish fumblings give way to formal courtship and marriage in the city, after the two lovers discover their real identities. The lovers' journey is thus an inner one, from the innocence of rural childhood to the knowledge of socialized maturity. The

paradigmatically natural quality of their love is stressed by the way it follows the rhythm of the seasons, awakening in spring, growing in summer, resting in winter, and finding its fulfilment in the second autumn; significantly the novel is in four books. Three myths of metamorphosis, narrated by characters in the story and forming a sequence of increasing violence and sexuality, counterpoint the main narrative in the first three books. Implicitly the fourth and final metamorphosis is Chloe's passage from virgin to wife, and the final myth the novel itself.

A preface presents the novel as an *ekphrasis* (''description'') of a painting discovered by the narrator while hunting in Lesbos. It also claims – with a mischievous allusion to Thucydides – a universal applicability for its story. The experiences of Daphnis and Chloe are thus an educative allegory of human love and its place in nature, but the novel is also a self-referential meditation on the nature of literary fiction, which, like the love it depicts, and like a pair of symbolic gardens in the story, is a symbiosis of art and nature, artifice and reality.

Although there is no external evidence to date the novel, its lightly worn erudition and multiple layers of meaning, as well as the artful simplicity of its prose, mark it as a product of the period of the Second Sophistic. The story is set in a timeless Hellenic past, when the two chief cities of Lesbos were independent and war between them was a possibility; there is no attempt to recreate a more precise historical milieu. There is no trace of Rome, but, in its displaced fashion, *Daphnis and Chloe* reflects contemporary concerns with self and sexuality, and, in its ethical but not simplistic confrontation of town and country, echoes a prevalent urban nostalgia for a non-existent bucolic simplicity.

J.R. MORGAN

See also **Novel**

Biography

Otherwise unknown, Longus was the author of the novel *Daphnis and Chloe* which may be dated to the late 2nd or early 3rd century AD. The setting suggests that he may have been a native of or visitor to Lesbos. The style places it in the period of the Second Sophistic. The treatment of love as a developing condition is innovative.

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LUCIAN *c.*AD 120–180

Prose writer

Lucian of Samosata was by birth a Syrian rather than a Greek but became one of the most important Greek literary figures of his time. He wrote in an exceptionally pure form of the literary language of the 2nd century AD, an Atticizing Greek almost indistinguishable from that of Plato and very different from the non-literary Greek of his day. This purity of style was essential to his success as an orator and travelling speaker in an age where enormous importance was attached to the use of correct Greek at all times. (Two of Lucian's works, *The Mistaken Critic* and *A Slip of the Tongue in Greeting,* are elaborate defences of the author after he had been accused of making, in the course of casual speech, linguistic errors that to us would seem utterly trivial.) The quality of Lucian's language was also one of the main reasons for the continued popularity of his works after his death and their influence on later literature.

Most of Lucian's writings are humorous; they were written to entertain rather than to instruct or defend. Perhaps most famous are the satiric dialogues, in which the author mocks insincere philosophers, the rich, and the major figures of classical mythology. Thus for example in *The Downward Journey,* which like many of his works is set in Hades, the author depicts the humiliation of a rich tyrant after his death while also making fun of awe-inspiring mythological figures such as Charon and Clotho. In *Zeus Catechized* he shows Zeus confounded by a human who asks how the power of the gods can be compatible with the existence of preordained destiny, and the same problem is discussed in worried tones among the gods themselves in *Zeus Rants.* In *Philosophers for Sale* various philosophical creeds are auctioned off as slaves, and in the *Fisherman* the founders of the major philosophical schools, returning to life in order to punish Lucian for his attacks on philosophy, discover the vices of their current followers and repudiate them.

These works show that Lucian had an extensive knowledge of Greek literature from Homer onwards and no scruples about parodying it, and they remain extremely funny to anyone with the background to appreciate them. Some parodies are also written in a narrative rather than a dialogue format, such as the *True Story,* the tale of an imaginary voyage with fantastic adventures. Less popular nowadays are the panegyrics and the rhetorical exercises in which Lucian shows his oratorical skill by defending an unlikely or indefensible point; his legal speeches

were not intended for actual court proceedings, but for show. Many of the works are set in Classical times or contrast the present unfavourably with those times, and the works that most influenced Lucian (Old and New Comedy, Plato's dialogues, and the lost satires of 3rd century BC Cynic Menippus) were all written long before his own time. Thus both in his archaizing language and in his choice of subject matter Lucian reflects the preoccupation of his day with a distant and glorious Greek past, but at the same time he is conscious of rivalling the Classical authors both in language and in wit.

Lucian's works enjoyed immediate popularity that continued into the late antique period, when he was read by figures such as Libanius, Julian, and Alciphron. With the ascendancy of Christianity his status became problematic; his ridicule of the pagan gods and of moral decadence in general was attractive to the Christians, but his *The Passing of Peregrinus,* a biting satire against a charlatan philosopher who had been for a time a Christian, includes some unflattering comments about Christianity and the folly of its practitioners. Although mild compared to the opprobrium Lucian heaped on other groups, these comments drew the ire of many Byzantine Christian writers; thus for example in the influential 10th-century lexicon known as the *Suda* Lucian is identified as "Lucian of Samosata, also called the blasphemer or the slanderer, or rather the atheist" and condemned in the strongest terms. It is significant, however, that Lucian merits a place in the lexicon despite its author's obvious dislike of him, and another large Byzantine manual, Photios's 9th century *Library,* contains no mention of the anti-Christian material and simply praises Lucian's style and his attacks on immorality and paganism.

In the end, however, it was not Lucian's beliefs but the quality of his writing that ensured his popularity among Byzantine writers. They admired and imitated his language, judging it the equal of Classical Attic (it receives elaborate praise from authors as diverse as Photios and the 12th century Gregory of Corinth), and they continued to read and laugh at his satires, which some later Byzantine writers (among them Theodoros Prodromos and Manuel Philes) also attempted to imitate. His influence contributed to the development of a genre of satirical dialogues and another of descriptions of imaginary voyages.

ELEANOR DICKEY

Biography

Born at Samosata in Syria around AD 120, Lucian was a prolific and influential writer of Atticizing Greek. Little is known of his life, but he seems to have travelled a good deal and to have spent time in Athens and later in Egypt. Among his writings the satiric dialogues are best known, and his prose style was much admired by the Byzantines. He died around 180.

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LYCEUM

Site of Aristotle's Peripatetic school in Athens

The Lyceum was one of the main public gymnasia in Athens, named after the sanctuary dedicated to Apollo (Lykeios). In the 5th and 4th centuries BC various Sophists lectured in the Lyceum and Socrates spent time there too. Here Aristotle founded his own school in 336/35 BC. For a long time the exact location of the Lyceum was a matter of speculation. In 1996 the foundations of a large building were discovered in Odos Regillis containing a palaestra which must have belonged to a great gymnasium, plausibly identified as that of the Lyceum. The identification is supported by the date, the use, and the construction of the gymnasium and it corresponds with written sources on the location of the Lyceum.

There is no direct evidence for the motives behind the foundation of Aristotle's school, but it is arguable that Aristotle wanted to influence philosophical education in a way that was not possible in the Academy. Aristotle's school was called "Peripatos" by the members of the school itself. It is more likely that the school was named after the site of the gymnasium than from the activity of walking. Aristotle, unlike Plato, was a metic and thus he could not own property. Theophrastus, Aristotle's successor, though a metic, acquired property with the help of Demetrius of Phaleron. Theophrastus' will (*Diogenes Laertius,* 5. 51–57) is very informative about the architecture and the outlook of the school. The scholarch was the legal owner of the school, which relied on his financial means. The core of the instruction was the scholarch's lectures, but Aristotle also trained his students in dialectic and rhetoric. Aristotle's esoteric works represent to a great extent the lecture material. The Peripatos, like the Academy, did not require adherence to a set of doctrines. Aristotle's views were modified or questioned by early and later Peripatetics alike.

The first generation of Peripatetics is characterized by extraordinary productivity and diversity. Theophrastus became head of the Lyceum when Aristotle left Athens on the death of Alexander the Great in 323 BC. His voluminous works show a clear concern to continue and develop Aristotelian philosophy. It is controversial whether Theophrastus consciously departed from Aristotle's views, but he certainly rejected Aristotle's god, the unmoved mover, although he retained a belief in the divinity of the heavens and the eternity of the world. Theophrastus was preoccupied primarily with natural science but he also showed a keen interest in ethics and rhetoric. He is well known for his *Characters,* and he presumably foreshadowed later developments in Stoic ethics. Important Peripatetics of Theophrastus' generation included Dicaearchus, Aristoxenus, Eudemus, Clearchus of Soli, Phaenias of Eresus, and Chamaeleon. These early Peripatetics showed a strong interest in cultural topics, such as literary criticism (Chamaeleon), rhetoric, and biography (Dicaearchus, Aristoxenus, Phaenias, Clearchus), and their writings were probably used by the Alexandrian scholars a century later. Following Aristotle, they also showed a strong interest in the history of philosophy, logic, and natural science.

The Hellenistic Peripatos was less prominent than its rival philosophical schools. Strato (scholarch 287–269 BC) became known as "the natural philosopher". He rejected Aristotle's theory of place and maintained the existence of the void in

the world. Anticipating the Stoics, he made nature and not god the ultimate cause of all phenomena and like earlier Peripatetics (Dicaearchus, Aristoxenus) he maintained the materiality of the soul. Strato's successor Lyco (299–225 BC) is a rather insignificant figure. He tried to revive the school and to attract more students by focusing again on ethical issues, fashionable among the Hellenistic schools. After Lyco the Peripatos declined rapidly and there is no evidence of any serious philosophical activity until the 1st century BC. Hieronymus of Rhodes is better known than Lyco's successor Aristo of Cos for his theory that happiness consists in freedom from pain. Critolaus (2nd century BC) resumed metaphysics; he modified the Aristotelian doctrine of providence, extending it into the sublunary world, while he also claimed that soul and intelligence consist of ether.

In the 1st century BC the Peripatos enjoyed a revival with Andronicus of Rhodes, the acclaimed editor of Aristotle's works. Signs of a recovery were evident before Andronicus. Ariston and Cratippus, both pupils of the Academic Antiochus of Ascalon, abandoned the Academy for the Peripatos. Yet there is no evidence that any of them (including Andronicus) ever became head of the Peripatos. Like the Academy and the Stoa, the Peripatos presumably ceased to exist after the sack of Athens by Sulla in 87/86 BC. Yet the desertion of Aristo and Cratippus makes sense only if some form of Peripatetic school existed. The decline and the revival of the Peripatos are traditionally associated with the fortunes of Aristotle's writings. It has been argued that after Theophrastus the Peripatetics had only Aristotle's exoteric writings at their disposal, whereas his esoteric treatises came to light due to Andronicus' editorial activity. Andornicus received help from the grammarian Tyrranio who provided him with copies of Aristotle's works found in the library of Appelicon which were first moved to Athens and after the sack of the city by Sulla to Rome (*Strabo*, 13. 1. 54; Plutarch, *Sulla,* 4). There Andronicus prepared his edition which included the esoteric works in a certain arrangement and was furnished with commentaries on some treatises and a catalogue. Yet it is not safe to assume that Andronicus was the first to make Aristotle's works available after many centuries or that their present arrangement goes back to him. With Andronicus and his circle (Boethus, Xenarchus) a conscious attempt was made to present Aristotle's philosophy as a system, and to explain real or apparent discrepancies in his writings. From this time on Aristotle's works would be read and commented on by philosophers of all schools, but it was not Andronicus' new edition with triggered this.

There is meagre evidence for any philosophical activity of Peripatetics after Andronicus. Nicolaus of Damascus (64, BC–AD 4) wrote a compendium of Aristotle's teaching. To the 1st century AD presumably belongs the Peripatetic Aristocles of Messene who wrote a long work On *Philosophy* in which he recounts the development of philosophy and criticizes Sceptics, Epicureans, and Cyrenaics. A substantial revival of Aristotelian philosophy took place in the 2nd century AD with Adrastus, Aspasius, and especially with Alexander of Aphrodisias. Both Adrastus and Aspasius wrote a number of commentaries on Aristotle's works. Other Peripatetics of this period include Sosigenes, Herminus, and Alexander of Mytilene, all of them teachers of Alexander of Aphrodisias. Marcus Aurelius set up chairs of philosophy in AD 176 and the first Peripatetic incumbent was Alexander of Damascus. His successor, Alexander of Aphrodisias, excelled as a commentator on Aristotle and he had a strong impact even among Platonists. Although Alexander's contribution is very significant, especially in logic and metaphysics, no pupils of his are mentioned. After him nothing more is heard of the Peripatetics. With the introduction of Aristotle into the Neoplatonic curriculum, Aristotle was appropriated by the Platonists who now undertook the writing of commentaries. Aristotle's works, especially the *Organon,* now served as an introduction to Platonist philosophy. This change of the Platonists' attitude to Aristotle is to be associated mainly with Porphyry and Iamblichus (3rd–4th centuries AD). Aristotle was seen through Platonist eyes and this version of Aristotle was the one that was inherited by the Middle Ages and the Renaissance.

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See also **Aristotle; Theophrastus**

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LYCIA

Region of southwest Asia Minor

The Lycians may have had contact with the Greek world in the Bronze Age, to judge from scattered archaeological remains. Contact had been re-established by the 8th century BC, when the Lycians borrowed their alphabet from the Rhodian Greeks. In the east of Lycia in the 7th century BC there was a strong Rhodian presence, including the cities of Rhodiapolis, Corydalla, Gagae, and Phaselis, though only Phaselis maintained a distinct Greek character through the Classical period.

In mythology and cult Lycia was early associated with Apollo, who had an epithet Lykeios, and was sometimes said to have been born there; an oracular site is known as early as Herodotus (I. 182). Lycia also formed the setting for Bellerophon's encounter with the Chimaera. The Lycian heroes Sarpedon and Glaucus are highly prominent in *Iliad,* with Sarpedon second only to Hector himself on the Trojan side; one of the classic expositions of the code of the Homeric hero is placed into Sarpedon's mouth, in discussion with Glaucus (*Iliad,* 12, 307–30).

Because of Lycia's important position on the naval route from the eastern Mediterranean to the Aegean, it was strategically of great value, and was often disputed in the struggles between Greek hegemonies and Persia, and then those between the Hellenistic states (and eventually Rome). Alexander the Great invaded Lycia to deny naval bases to Persia, and Ptolemaic Egypt felt it important to maintain control over the area in the 3rd century BC.

Lycia was ruled by a semifeudal aristocratic monarchy, with a number of quasi-independent dynasts being attested (claims that it had a "federal" constitution before the Hellenistic period are unfounded). This system, under Hellenic influence, culminated in individuals such as Pericles of Limyra (*c.*380–370 BC), who displayed some of the aspects of personal rule later seen in Mausolus of Caria and the successors to Alexander.

From the 6th century BC the Lycians were commissioning Greek (or Greek-trained) artists to produce sculpture for them, though often applying Greek styles to native or oriental themes (note the frequency of the oriental audience scene, e.g. on the "Harpy Tomb" at Xanthus); such commissions may have contributed to the further spread of Greek artistic traditions. By the end of the 5th Century the Lycians had begun to use the Greek language in inscriptions; in the 4th century some Lycians adopted Greek names. The process of Hellenization continued through the following centuries (including some Greek settlement, but to a degree which is difficult to judge), until it reached the point where Cicero could speak of them as "a Greek people" (*In Verrem,* 4. 10. 21). Nevertheless, aspects of Lycian society can be seen feeding into the main Hellenic tradition. The Lycians were pioneers in the use of portraits of living individuals on coinage (in the late 5th century BC), and their blend of Hellenic and oriental influences in their art and architecture can be seen as a microcosm of the Hellenistic world that followed. In particular, early 4th-century Lycian podium tombs with facades imitating Greek temples, such as the "Nereid Monument" at Xanthus and the Heroön of Pericles at Limyra, influenced the Mausoleum of Halicarnassus and ultimately funerary architecture throughout the Hellenistic world.

Several Greek writers are known to have been native Lycians. Leaving aside the semimythical poet Olen, sometimes supposed to be from Xanthus, there was the 4th-century BC historian/mythographer Menecrates of Xanthus, the 3rd-century BC writer Mnaseas, and the 5th/6th-century AD geographer/historian Capiton of Lycia. Theodectus, a 5th-century BC tragic poet, came from Phaselis, and the late Epicurean philosopher Diogenes (2nd century AD?) was from Oenoanda in north Lycia, where he left a massive inscription detailing his philosophy. Only fragments survive of most of these authors' works, and the same is true of the numerous *Lykiaka* (works on Lycia) written by non-Lycian writers.

After *c.*200 BC a federal league appeared in Lycia, which was a significant force in eastern Mediterranean politics until Lycia became a Roman province in AD 43, and even after that continued to provide an administrative framework for the region. With the coming of the *pax Romana* Lycia became a quiet backwater, occasionally visited by Roman emperors and high officials (Augustus' heir Gaius Caesar died there in AD 2), which was slipping into economic decline by the 3rd century AD.

ANTONY G. KEEN

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LYCOPHRON

Hellenistic poet

Lycophron's claim on our attention rests on a single text, the *Alexandra*, formally a hypertrophic messenger's speech, a dramatic monologue of over 1400 lines reporting the prophecy of the Trojan War and its aftermath delivered by Cassandra (here Alexandra) when Paris set out for Sparta. Its erudite and

lively-minded author is usually identified as Lycophron of Chalcis, the contemporary of Callimachus who organized the texts of comedy for the Alexandrian library under Ptolemy II (282–246 BC) and composed not only numerous tragedies (of which merely one fragment and 20 titles survive), but also a satyr play with a contemporary subject, his teacher Menedemus of Eretria (see Snell, *Tragicorum Graecorum Fragmenta*, vol. 1, no.100). The traditional attribution has been questioned because the poem's references to a widely acknowledged Roman supremacy (1226–80 and, probably, 1446–50) appear incompatible with a date in the first half of the 3rd century BC, and some have therefore argued for composition in the early 2nd century BC, whether pseudepigraphically or by a younger poet of the same name; but it is more likely that these passages are later interpolations (see below).

The poem presents the matter of Troy from the Trojan standpoint; Cassandra's peculiar perspective is crucially important. Greek achievement is persistently denigrated, Greek misfortune stressed. Relatively little space (31–386) is devoted to the war itself and to Troy's downfall; here Cassandra concentrates on what concerns her family and herself, culminating with the horror of Ajax' assault when she had taken sanctuary in Athena's temple. In expiation for his act of sacrilege the Greek host undergoes manifold suffering both on the journey home (387–1089) and thereafter (1090–1282); in Locris, Ajax' homeland, his people will pay the penalty for 1000 years (the Locrian maiden tribute). Cassandra's vision then extends to further conflict between Asia and Europe, the Persian Wars, and the victories of Alexander the Great, concluding with the triumphs by land and sea of her (not easily identifiable) kinsman (1283–1450). With immense ingenuity Lycophron works into this framework episodes from other cycles of legend (such as the Argonautica), basic to the Greek cultural identity of his day. Interwoven with relatively familiar narratives, often given a new slant by the narrator's non-Hellenic standpoint, is material relating to the western Mediterranean, the foundation legends of Greek colonies, and strange tales inspired by the attempt to accommodate various native peoples within the Greek ethnographic framework. Wide reading and a magpie mind have resulted in a masterpiece of intertextual virtuosity, rich in colourful and curious detail. A narrative covering more than 1000 years is unified by the Aeschylean and Herodotean theme of the rivalry between Asia and Europe, an immensely grand conception matched by Lycophron's elevated, somewhat Aeschylean style.

The obscurity of Lycophron's manner of expression is often exaggerated, but certainly he must have envisaged erudite readers prepared to spend time in working out oracular conundrums; the modern reader is seriously handicapped by the loss of much literature which Lycophron could assume to be generally familiar to the educated. In any case, long-standing Indo-European tradition favoured a degree of inaccessibility in prophecy, where the presence of obstacles between the message and its recipient required the latter to exert himself, so that he would be the more likely to value the guidance offered at its proper worth.

Virgil evidently read the *Alexandra* with appreciation; it provided the most obvious model for the extensive use of prophecy to bridge the gap between the heroic age and the poet's own day, and for a narrative of Troy's fall presented from the standpoint of the defeated (though Aeneas' perspective is somewhat different from Cassandra's). To the same period belongs the commentary by Theon of Alexandria from which our scholia derive; without this guidance very much would be unintelligible to us. Though Lycophron does not figure among the authors recommended by Quintilian to aspirant orators, Statius' schoolmaster father apparently included him along with Callimachus in his syllabus (*Silvae,* 5.3. 156f.); he is similarly mentioned as a school author, along with Callimachus and Euphorion, by Clement of Alexandria (*Stromateis,* 5. 50. 3). This difficult, allusive poetry did not lack readers in provincial towns; from Roman Egypt we have papyri representing three separate copies (P.Oxy. 2094+3445, 2nd century AD; P.Oxy. 3446, 2nd century AD; P.Mon. 156, 1st–2nd century AD).

The poem's popularity in the Byzantine period, no doubt at least as much due to its wealth of mythological learning as to its literary qualities, is indicated by the proliferation of manuscripts; the Pontifical Institute of Mediaeval Studies in Toronto has produced a list of nearly 150 (see Robert E. Sinkewicz, *Manuscript Listings for the Authors of Classical and Late Antiquity*, microfiche 4, Toronto: Pontifical Institute of Medieval Studies, 1990). It was regular reading in Byzantine schools; Gregory of Corinth recommended the clearer passages of Lycophron (along with Sophocles) as models in the composition of iambics. Eustathios refers to him more than to any other poet apart from Homer, on occasion quoting him without name, his habit only with works that he knew very well (see further M. van der Valk, *Eustathii Archiepiscopi Thessalonicensis Commentarii ad Homeri Iliadem Pertinentes*, vol. 1, Leiden: Brill, 1971, p. LXXXV); it is highly probable that he contemplated composing a commentary on the *Alexandra*.

Lycophron's stock stood very high in the 16th century; nine editions of the *Alexandra* had been published by 1600, and the poem was esteemed by the Pléiade, the erudite circle to which Ronsard belonged. A steep decline in its standing set in at the beginning of the 19th century, with the invention of the Lycophron Question, which turns on the poem's references to Rome's supremacy. Cassandra's prediction of the manifold tribulations in store for the Greeks concludes with a lengthy passage on the future fame of Aeneas' line settled in Italy (1226–80), an unqualified encomium of the rising power of Rome which in the first half of the 3rd century BC might be thought to indicate authentic prescience. Little attention was paid to this problem until it attracted notice from B.G. Neibuhr and, independently, the Whig politician Charles James Fox. Niebuhr postulated a later Lycophron, writing in the early 2nd century BC after the Roman conquest of Greece; Fox diagnosed interpolation. A further passage is affected; Cassandra's prophecy culminates (1446–50) in the victories of a kinsman of hers, some time after Alexander the Great, "a unique wrestler" who will triumph by land and sea. There is too much detail for this to be taken as an unspecific hope for the future; but the identity of the conquering hero is highly controversial, though there seems currently to be general agreement that he must be a Roman, and probably Titus Quinctius Flamininus, the victor of Cynoscephalae (197 BC), enjoys the strongest support. The surprisingly brief treatment of Alexander's achievements (1439–45) rather suggests that a process of updating led to some curtailment of the original culmination of Cassandra's prophecy; we should expect her to display more interest in the decisive role to be played by a second Alexander in the

intercontinental feud initiated by her brother. Thus, though the *Alexandra* is permeated by a sense of historical development over a millennium and creates the expectation of a political or ideological message, we are frustrated by the problem of identifying the figure on whom Cassandra has set her hopes.

STEPHANIE WEST

Biography

Traditionally identified with Lycophron of Chalcis, tragedian and contemporary of Callimachus (early 3rd century BC, but some prefer a 2nd century date). He was the author of one surviving poem, entitled *Alexandra.* It reports the prophecy of Cassandra relating to the Trojan War and its aftermath.

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LYSANDER

Spartan general of the 5th century BC

A member of a noble family that claimed descent from the founding heroes, the sons of Heracles, Lysander first appears in the sources when appointed to command the Spartan fleet in the east Aegean in 407 BC. The Spartans' prospects had declined since the renewal of the naval war in 412 BC after the disastrous failure of the Athenians' expedition to Sicily. Then, with the Athenians' allies beginning to secede and the Persians contemplating intervention against Athens, the Spartans reacted vigorously by sending a fleet to the west coast of Asia Minor. The Athenians, however, had proved resilient, despite internal dissension, while Spartan admirals were ineffective and failed to establish good relations with the Persian satraps, who supplied some money but failed to commit themselves. In late 411 and 410 BC the Athenians, inspired by Alcibiades, who had returned from exile to join their fleet, had won two victories, the second off Cyzicus leading to the destruction of a Spartan fleet of 60 ships. They had gone on recovering lost allies and by June 407 BC, when Alicibiades made a triumphant return to Athens, were looking to complete the restoration of their old naval dominance.

On taking up his command, Lysander was fortunate in that a Spartan embassy had just returned from Susa, having secured the Persian king's agreement to renew support for Sparta and his appointment of his younger son Cyrus, to take charge of the three western satrapies and of the implementation of the agreement. Lysander at once established good relations with Cyrus, whose support enabled him to refit and strengthen the fleet he took over at Ephesus. By late August it numbered 90 ships. With these he was able to take advantage of Alcibiades' temporary absence at Phocaea and of the inexperience of his deputy to destroy 22 of his 100 ships, a victory that led to the removal from his command of Alcibiades, who never returned to Athens.

At the end of the year, under the Spartan system, Lysander was replaced. His successor, Callicratidas, obstructed by Lysander's supporters, fell out with Cyrus and was defeated off the Arginusae islands. In consequence both Cyrus and their Greek allies urged the Spartans to restore Lysander to the command and they responded by giving him effective control for the year 405 BC as the nominal second-in-command to Aracus. Cyrus, whose original funds had long been exhausted, somehow found the money to enable him to rebuild his fleet; in the late summer, after some clever manoeuvring in the central Aegean, he reached the Hellespont (the Dardanelles) ahead of the Athenian fleet, taking Lampsacus by assault and from there threatening to intercept the ships bringing Athens' corn supplies from the Black Sea. The Athenians followed him into the straits and, to avoid having to battle continually with the powerful southwest-flowing current, based themselves on an unsuitable beach at Aegospotami. On four successive days they rowed out to offer battle, but without response, and on the fifth Lysander, who had observed how the Athenians, after beaching their ships in the evenings, had scattered in search of food or rest, waited for them to retire and then ordered his ships to attack. All but 10 of the Athenians' 180 ships were taken with little resistance in what was truly a decisive victory. It was the last fleet that the Athenians could muster, but until that evening they could still have avoided defeat and even won the war.

Lysander then toured the Aegean, driving Athenian settlers back to increase the hungry mouths at home and removing their friends from power in the various cities, and then brought his fleet, now of 150 ships, to Aegina to join the land armies in the

final siege of Athens. When surrender terms were agreed in the spring of 404 BC, he sailed into the Piraeus to supervise the demolition of the walls. Soon after he assisted in the establishment of an oligarchic regime, the "Thirty Tyrants", which soon proved cruel and oppressive.

While the Athenians could hardly have expected anything better (and many, no doubt, feared worse), the Spartans' new allies in and around the Aegean must have hoped for more generous treatment than they now received at the end of a war that the victorious Spartans at the start had declared was undertaken to "free the Greeks" (Thucydides, 1. 129 and 2. 8). Lysander, however, favoured close control, in this very probably looking to secure the allies' loyalty to himself as much as to Sparta. According to Plutarch (*Lysander*, 5), he was already in 407 BC plotting with local aristocrats to set up decarchies (councils of ten) to rule liberated cities, and after Aegospotami in 405 BC he carried out this policy, installing Spartan Officers (harmosts) in the cities to support the new regimes; Plutarch adds (13) that he assisted in a number of massacres, a generalization illustrated by his later account (19), supported by that of Diodorus (13, 104), of events at Miletus. Lysander's recall to Sparta and the modification of his policies, probably in 403 BC, failed to convince most of the new allies, who broke away when the Spartan fleet was defeated by the Persians off Cnidus in 394 BC.

Meanwhile in mainland Greece Lysander maintained a hard line. In 403 BC he would have suppressed the resurgent Athenian democrats, had he not been supreseded by king Pausanias, who brought an end to civil war with an amnesty and restored the democracy. He remained influential, helping to secure the kingship for Agesilaus II in a disputed succession in 400 BC, but being rejected by him when he accompanied the king on his expedition to protect the Asiatic Greeks against the Persians (396 BC) and the allies assumed that he, not the king, was really in charge. In 395 BC, irked by the independent line taken by the Thebans since' Athens surrender, he was very probably one of those who persuaded the Spartan leadership to declare war on Thebes on behalf of the Phocians (Plutarch, *Lysander*, 28). This was the Corinthian War, during which the Athenians recovered real independence and the Spartans, under pressure, were restored to their leading position in 387 BC only after regaining Persian support. Lysander was at once sent with an army to collect a Phocian contingent, invade Boeotia, and link up with Pausanias at Haliartus, but on arriving there early he rashly became engaged in a battle and was killed. His personal ambition had done much to damage the Spartan position, but whether he planned to have the rules of the Spartan kingship altered to open it up to leading men outside the two royal houses, such as himself, as was alleged after his death (Plutarch, 30), is doubtful.

Lysander has not had a great impact on the modern world. A type of aircraft that gave good service to the British Royal Air Force in World War II in many regions including Greece was named after him, but this could well have been due to his being included among the "great men" in the marching song *The British Grenadiers;* he probably owed his presence there to the fact that his name rhymes with Alexander.

T.T.B. RYDER

See also **Peloponnesian War**

Biography

Lysander was appointed admiral of the Spartan fleet in 407 BC and won a great victory over the Athenians at Aegospotami in 405, during the Peloponnesian War. Having secured the surrender of Athens in 404 he assisted in the establishment of the "Thirty Tyrants". At Sparta he secured the kingship for his lover Agesilaus II in 400. In 395 he helped persuade the Spartans to declare war on the Thebans and was himself killed in battle.

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LYSIAS *c.*459/58–*c.*375 BC

Athenian orator

Lysias' father was a Syracusan who, in the mid-5th century BC and on the invitation of Pericles, settled in Athens as a resident alien. He became extremely wealthy, since he was a manufacturer of arms and armour at a time when Athens was almost continuously at war. Lysias himself, with his brother Polemarchus, spent some time at Thurii in southern Italy, but returned to Athens well before the end of the 5th century BC. After being decisively defeated by Sparta, Athens was ruled in 404–403 BC by a group of men who (with Spartan backing) operated as a collective dictatorship and earned the name "the Thirty Tyrants". They killed Polemarchus, arrested Lysias, and seized all the property held by the family in Athens. Lysias managed to escape, and through his property abroad and rich foreign friends he was able to give significant financial help to the Athenian exiles who eventually expelled the Thirty and restored democracy. He died *c.*375 BC.

As a resident alien Lysias could not participate directly in Athenian political life, but he was greatly in demand as a speech writer for people involved in litigation, who were required to speak in person, for there were no professional "solicitors" or "barristers" in Athens, and prosecutions for criminal offences were normally conducted by individual citizens motivated by patriotism, officiousness, political ambition, or enmity towards the defendant. Oratory had always been regarded in the Greek world as a major art form, a key to success not only in the

courts, but also in councils and assemblies, and from the mid-5th century BC, at least in a democratic city such as Athens, there were rhetoricians who professed to teach oratory to politically ambitious young men.

A generation before Lysias the Athenian Antiphon inaugurated the practice of circulating speeches composed for clients, and Lysias followed this practice. So did other speech writers, and the formal structure of a speech was extended to what are sometimes called political pamphlets but correspond most closely to modern articles in periodicals of general interest. So far as concerns forensic speeches, it is of course impossible to find out the relation between the written text and what was actually said in court. We very rarely know the outcome of a case, but an ancient tradition, originating perhaps in a boast by a friend or a relative of Lysias after his death, alleged that he lost only two cases in his life.

At the end of the 4th century BC there existed no fewer than 425 speeches attributed to Lysias. A high proportion of those attributions is likely to have been false, because in an age where there were no publishers' contracts, no law of copyright, no royalties, and indeed rather little documentation in general, booksellers (like music sellers in the early 18th century AD) had the profitable habit of ascribing to famous names works actually composed by very obscure authors. In the late 1st century BC literary critics ruled out as spurious – mainly on stylistic, sometimes highly subjective, grounds – practically half the total of speeches sold under the name of Lysias. This was a time of reaction against the over-elaborate, formalized style which had come to dominate Greek oratory, and Lysias came to be admired not only for his spare, lively, and natural style but also for the way in which he seemed to invest a speaker with a character that was consonant with that speaker's status and likely to make a favourable impression on a jury (which had no presiding judge to sum up or guide it on points of law). In any country nowadays where ancient Greek is taught, selections from Lysias often constitute the learner's first introduction to Classical Attic prose texts.

In late antiquity Lysias, together with others who have come to be labelled the minor Attic orators, was overshadowed by Demosthenes (born about the time of Lysias' death), and only 27 speeches attributed to Lysias, plus seven truncated or mutilated, survived into the Middle Ages. They include a funeral speech for the Athenian war dead of a year in the late 390s BC and a portion of a ceremonial speech at the Olympic Games. Plato inserts in his *Phaedrus* a sophistic exercise in paradox which he presents as a composition by Lysias, but whether it is genuine or a clever parody by Plato remains disputed. It is difficult for us to form opinions of our own on the authenticity of any of the surviving speeches except no. 12, which was delivered by Lysias himself, prosecuting a member of the Thirty for the murder of his brother Polemarchus. Some of them, however, exhibit distinctive features of language which cannot all be explained by difference of genre or characterization.

KENNETH DOVER

Biography

Born *c.*459/58 BC the son of Cephalus, a resident alien (metic) in Athens from Syracuse, Lysias and his brother Polemarchus went to Thurii in southern Italy. They left Thurii after the Athenian military disaster in Sicily and returned to Athens as metics. In 403 both brothers were arrested by the "Thirty Tyrants" and Polemarchus was killed. Lysias escaped and achieved distinction as a speech writer. He died *c.*375 BC.

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LYSIPPUS

Sculptor of the 4th century BC

Lysippus was a sculptor from Sicyon in the Peloponnese. Although Pliny (*Naturalis Historia*, 34. 51) places him in the 113th Olympiad (i.e. 328–325 BC), Lysippus was active long before. For example, his statue of Troilus of Elis, victor in the chariot race at Olympia, is likely to date from soon after 372–368 BC (Pausanias 6.1.4), and his portrait of Pelopidas, a Theban general, was dedicated by the Thessalians at Delphi *c.*363/62 BC. Lysippus may have been active as late as 316 BC when he was apparently commissioned to make an amphora for Cassander on the occasion of the foundation of the town of Cassandreia (Athenaeus, 2. 784). This suggests that he was probably born around 390 BC.

Lysippus, like the Athenian Praxiteles, was celebrated in antiquity for his achievement in representing realism (Quintilian, *Institutio Oratoria*, 12. 10. 1–10). Pliny (*Naturalis Historia,* 34. 65) specifically commented on the way that Lysippus represented hair, and noted the way in which he made the heads of his statues smaller than his predecessors. His statues were also said to be slender, which apparently had the effect of making them seem taller. The overall effect, in ancient eyes, was that Lysippus represented men "as they appeared". His genius is reflected in the fact that ancient art historians considered that he had no teacher; Pliny (*Naturalis Historia*, 34. 61) records the tradition that he was inspired to become a sculptor by the painter Eupompus.

Pliny noted that Lysippus was a prolific sculptor, and some 50 statues have been attributed to his hand. His popularity is reflected in the story that on his death he had 1500 gold coins stored away, one for each of the statues he had created. Such numbers are unlikely and probably represent his influence on his "school"; Pliny (*Naturalis Historia*, 34. 66) accepts that it was hard to distinguish between the works of Lysippus and those of his pupils. Lysippus seems to have made largely bronze statues.

One of his famous statues was a colossal bronze *Heracles* which once stood on the acropolis of the Greek colony of Tarentum in southern Italy. This was carried away to Rome by Fabius Maximus in 209 BC and was displayed on the Capitoline. It was apparently taken to Constantinople, where the Byzantine historian Niketas Choniates described it in the 13th century. This statue has been associated with the marble statue of a muscular *Heracles* leaning on his club that was found in the baths of Caracalla in Rome (it is now in Naples), but this Roman copy was in fact the creation of an Athenian sculptor, Glycon. A second colossal bronze statue, 18.3 m (40 cubits) high, also from Tarentum, could still be seen in the agora of the city in the 1st century AD, and is recorded there by Strabo (6. 3. 1).

As with other Greek sculptors, Lysippus' works were collected and copied in the Roman period. Pliny records the tradition that Lysippus' *Apoxyomenos* was removed from in front of the baths of Marcus Agrippa and placed in the bedroom of the admiring emperor Tiberius. One of Lysippus' smaller statues was the *Heracles Epitrapezios,* which by the late 1st century AD was in the private collection of one Novius Vindex and celebrated by both Martial (9. 44) and Statius (*Silvae,* 4. 6. 32–47). The statue, which shows the seated here holding out a drinking cup, had apparently been made for Alexander. Although small-scale Roman copies are known, a large-scale copy was discovered at Alba Fucens in Italy, which might suggest that Lysippus himself produced the same statue type at different scales. Lysippus followed Praxiteles in making a bronze (rather than marble) statue of *Eros* for the Boeotian city of Thespiea; possible Roman copies have been identified.

There is a tradition, undoubtedly erroneous, that Lysippus alone was allowed to create portraits of Alexander. However what is clear is that Lysippus was engaged in making royal portraits and images of members of Alexander's court. This association between Lysippus' home polis of Sicyon and Macedonia can perhaps be explained by the friendship between Aristratus, tyrant of Sicyon and the Macedonian royal family. Lysippus' portraits of Alexander apparently showed the subject with his face turned upwards towards the sky; Plutarch (*Alexander,* 4) noted that Lysippus recorded the main characteristics of Alexander: "the poise of the neck turned slightly to the left and the melting glance of the eyes". Such a pose can be recognized in Hellenistic portraits of Alexander, such as those found at Pella and Pergamum.

One of the monuments that Lysippus created was to commemorate the 25 companions who died in Alexander's victory over the Persians at the river Granicus (in northwest Turkey) in 334 BC. This group, which included a portrait of Alexander, was erected at Dion in Macedonia and is probably to be identified with "Alexander's Squadron", a group mentioned by Pliny. It was carried off to Rome by Quintus Metellus in 148 BC. Another of Lysippus' Macedonian groups was the *Alexander's Hunt* which was dedicated at Delphi. The inscription from the base of this bronze group shows that it was erected by the son of Craterus, one of Alexander's generals.

DAVID W.J. GILL

See also **Sculpture**

Biography

Born at Sicyon in the Peloponnese perhaps *c.*390 BC, Lysippus was active as a sculptor from about 370 to 316 BC. He was prolific: some 50 statues are attributed to him. In antiquity he was celebrated for representing realism. His subjects included Alexander the Great. His works were popular at Rome.

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M

MACEDONIA

The latest archaeological findings have confirmed that Macedonia took its name from a tribe of tall, Greek-speaking people, the Makednoi (*ma(e)kos* = length). They shared the same religious beliefs as the rest of the Hellenic world but up until the Classical period remained outside the cultural and political development of the southern city states. From the 7th century BC onwards Makednoi under the leadership of the Temenid dynasty, started to move from the highlands of present Greek western Macedonia to the southeast, initially in the winter pastures of Pieria, expelling, subduing, or assimilating a number of Thracian and Phrygian tribes. By the 5th century the Macedonian kingdom was strong enough to occupy all the lands to the east of the Pindus and to the west of the Strymon river and stretched more or less as far north as the present northern border of Greece. This was achieved through agricultural and military reforms which created an upper class of noble landlords as well as an army of landowning soldiers.

Reform and expansion overlapped with the peak of Athenian domination, resulting in a lengthy period of tension which took many forms. Anxious to exploit rich Macedonian resources, Athens tried to colonize eastern Macedonia, destabilize the ruling dynasty, encourage barbarian invasions, and facilitate disintegration. But it was during the same period of Athenian hegemony that the Macedonian kingdom started to come into closer contact with the southern civilization, Classical art, literature, philosophy, and the Attic dialect. The Macedonian court and nobility, rough and tough pastoralist highlanders, were overwhelmed and easily assimilated into Athenian culture. Even their local dialect, northwestern Greek, was replaced by Attic and left only a handful of written monuments in the form of inscriptions. The presence and work of Zeuxis the painter, Timotheos and Agathon the poets, and, most of all, Euripides secured for Athens what strategy had failed to accomplish: complete and perpetual cultural integration.

Yet "vulgar" Macedonians were not unanimously accepted by "refined" southern Greeks, especially by Athenians, as brethren; occasionally they were classified as "barbarians". This was not due to some latent but still distinguishable Thracian and Paeonian cultural influences or to local linguistic peculiarities. To a certain extent Athenian reluctance could be attributed to the Macedonians' rough manners, their monarchic government, and their delayed appearance on the scene. But the main source of antipathy was more than a century of conflict over eastern Macedonia, Thrace, the Chalcidice colonies, and, of course, the final victorious military involvement of Macedonia in southern affairs from 350 BC onwards, which signalled the end of the Classical period.

Philip II of Macedon was anxious to pacify and unify Greece at any cost – except his own – in order to attack the Persian empire. His dream was fulfilled by his son Alexander III the Great, who in no more than 12 years at the head of a Greek army occupied a major part of the then known world from the Aegean Sea to the frontiers of India. The scientific knowledge derived from his campaigns and explorations was significant. Moreover, the dissemination of Greek culture and language over this vast territory had a tremendous longterm impact on the shaping of the Roman empire, Christendom, and Byzantium. But Alexander's own dazzling personality, his adventures among strange peoples, and his unmatched strategic abilities outlived and overshadowed all his cultural achievements. These achievements became the stuff of popular myths, folklore, literature, ideals, and art among eastern and western people, and, above all, they nourished the Greek national imagination.

In the short term the kingdom of Macedonia did not survive as long as Macedonian pride. Although Macedonians gained a sense of superiority and abundant wealth from the east, they simultaneously experienced a dramatic demographic haemorrhage of manpower due to the Asian campaign and later on due to emigration to Syria and Egypt. During the wars of Alexander's successors and the Celtic invasion (279 BC) the country also suffered from relentless plundering and war indemnities. Moreover these endless and bloody wars alienated Alexander's generals individually from each other and collectively from the southern Greeks. In less than two centuries (323–148 BC) Macedonia was steadily reduced from a glorious world empire to a Roman province.

In 168 BC the Roman legions dealt a fatal and lasting blow to Macedonian autonomy. Macedonia was stripped of its possessions and was divided into four administrative districts. In

148, after an ill-prepared revolt, it was reunited and officially integrated within the Roman empire. The presence of legions however did not discourage barbarian invasions. It was only between the end of the Roman Civil Wars (31 BC) and the early Gothic raids (later 3rd century AD) that Macedonia enjoyed the benefits of the *Pax Augusta,* and especially the advantages of the Via Egnatia. It was during the same period that its numerous old and new gods made way for the rapid Christianization of the region.

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MAGIC

In one form or another, magical beliefs and rituals have always found a place in the Greek tradition, although it must be said that magic, as a distinct and easily recognizable category, is one no longer readily accepted by modern scholarship. For the sake of the present discussion, however, and while acknowledging the considerable debate on the topic, it may be understood in the present context to indicate that end of a continuous and largely undifferentiated spectrum of religious thought and behaviour deemed unacceptable to the dominant culture at any given period because of the purposes for which it is employed, because of the methods and the powers it is believed to use, and because of the assumptions it makes about the nature of the cosmos.

The ancient Greek religious tradition included a vast array of magical techniques through which it was believed that people could attain material enrichment and success; could protect themselves against misfortune, ill health, and malice; could discover normally hidden information; or could cause those they wanted to love them and those they hated to suffer or die. Indeed, it seems likely that most people's religious beliefs and practices contained much that may be categorized at the magical end of the spectrum. In an atmosphere of general uncertainty, insecurity, and helplessness, magic claimed to provide a method that worked directly and relatively dependably to solve all the problems, difficulties, and unfulfilled aspirations of everyday life.

Firm evidence of belief in magical power and practice goes back to the earliest Greek literature although this undoubtedly represents a far older tradition in prehistory: Circe, in Homer's *Odyssey,* for example, knows how to summon spirits of the dead and uses magic rituals to transform humans into animals, while in myth Medea possessed the power of the evil eye and can cause all manner of harm by magical means. Important references to magical practices and beliefs are found in literature from the entire span of ancient Greek culture, for example in Hesiod, Plato, Aristotle, Theocritus, Apollonius of Rhodes, Plutarch, Lucian, Plotinus, and Iamblichus. Knowledge derived from this material is supplemented by archaeological artefacts, in particular curse tablets, figurines, and amuletic gemstones. The most detailed information concerning magic in the older Hellenic tradition comes, however, from the Greek magical papyri that originate in Egypt and date between the 2nd century BC and the 5th century AD. This very rich collection of material demonstrates clearly that the Greek tradition of magic cannot be taken in isolation from the Egyptian, Jewish, and other near Eastern traditions, and confirms that magic was practised at many different levels, from villages to courts, and by practitioners ranging from itinerant to highly institutionalized individuals.

The magic revealed by these sources is primarily concerned with using the supernatural forces believed to control and influence the world in which humans exist, whether these are gods and goddesses, intermediary powers such as angels, demons, and decans, or spirits of the dead. Those associated with nature, such as solar and astral powers, feature prominently, while in the papyri, with their particular cultural context, the Jewish god Iao is most frequently named; but in general the forces of the underworld (notably Hecate) were undoubtedly those thought most helpful and potent. Magical practice, ranging from the crude and casual to the elaborate and formal, was thought to be empowered in almost all cases by a combination of speech and ritual action. Although sometimes no more than vestigial at a low level, these words and actions, which often involved overt symbolic linkage to the desired outcome, were underpinned at the most complex end of the scale by a vast system of knowledge of numerous levels of often highly individualized supernatural powers, and of the names, words, and practices to make them responsive or submissive. It was vital to know all the natural materials (animal, vegetable, or mineral) thought to be particularly favourable or potent in relation to the purposes of the magic in hand and either sympathetic or antipathetic to the powers being used; important too was knowledge of correct timing (generally determined by complicated astrological lore) and location (e.g. a crossroad or a place of violent death). Just as most people today, however, use modern technology with almost no knowledge of the underlying scientific theory, so most who employed magical techniques in the ancient world had no real understanding of their formal and complex intellectual basis.

For the purposes of analysis, magical practice in the Greek tradition may be said to fall into one of three general categories: protection, manipulation, and the discovery of normally hidden knowledge. For protection, amulets were most commonly used. These operated at all levels from individual to communal and were either worn on the body or placed strategically, on the doorpost of a house, for example, or on a city gate. All manner of materials were used, but all were thought to have some special apotropaic efficacy, whether physical or symbolic; this might be increased by combining elements, by adding written formulae, and by preparing them at the proper time and place.

Best known among the enormous range of popular techniques of magical manipulation, particularly for ill, is the use of

curse tablets and ''voodoo dolls''. In the former case imprecatory and magical formulae were most often inscribed on a lead tablet that was then associated with the enforcing powers by, for example, being inserted in a tomb or buried at a crossroads. The tablet was also frequently ''bound'' or ''fixed'' symbolically during the ritual, perhaps being tied with elaborately knotted thread, or pierced with a nail. Practices involving magical figurines were generally similar, although wax or clay might be used and rituals of piercing and binding were often more complicated; symbolic melting or severing of the image might occur and it might be associated with the victim by using personal materials (hair, nail clippings, etc.) and by inscribing personal names on specific body parts. In both cases ritual action was carefully timed and located and was accompanied by equally elaborate verbal elements. Such practices were believed to cause general loss of performance (e.g. in oratorical skill or reproductive capacity), illness (physical or mental), overwhelming lust, or even death; these effects might extend not only to humans but to livestock and crops as well. Other manipulatory techniques involved summoning and then compelling supernatural powers or spirits; in their more elaborate forms complex rituals of invocation took place and interaction with the powers might be thought to occur in a trance state or by means of visions seen, perhaps, in the shining surface of a vessel of water or a mirror. The latter practices relate closely to some used for determining hidden knowledge (see the article on Divination). Also related to these manipulatory techniques are the late antique rites of theurgy.

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See also **Divination; Evil Eye; Necromancy**

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MAGISTRATES

The monarchic political system of Mycenaean Greece was largely superseded during the Dark Age, the powers of the kings being redistributed among various magistrates *(archai).* As so often, our main evidence comes from Classical Athens, though the sheer size of the city makes it wholly exceptional in its great range of offices. A figure of 700 internal offices (*endemoi archai*) and a corrupt figure of 700 external ones (*hyperorioi archai*) are given for the 5th century BC by the *Constitution of Athens* (24.3), the second half of which (chapters 43–62) comprises a summary of the 46 main magistrates and boards of magistrates (adding up to a total of about 320 officials). These include financial officials various sortitive annual officials, the archons, the quadrennial *athlothetai* (officials responsible for the Panathenaea festival), elective and military officials. As many as different magistracies and boards are attested in the sources, adding up to some 450 magistrates (excluding the council, or *Boule,* of 500).

Various laws defined the basic criteria for magistrates at Athens: they were chosen by election or lot; they underwent a preliminary examination (*dokimasia)* before entering office; they served for at least 30 days; and they rendered accounts (*euthynai*) at the end of their term. In addition there was a minimum age-limit of 30; and all *archai* swore an oath that they would carry out their duties properly and in accordance with the laws. Magistrates regularly served for a period of one year only and in many cases were not eligible for a second term. Those in oligarchic states were chosen from the wealthiest citizens, but at Athens, after a long process of development, eligibility was extended to all four of the Solonian property classes, though formally only members of the first three classes were eligible for office even in the 4th century. Another contrast between oligarchic and democratic states was that magistrates in the former exercised real power, whereas many of those in the latter were essentially administrators, and all were subject to the will of the popular assembly. Magistrates summoned and presided over meetings, prepared the agendas and put motions to the vote, and most importantly executed the decisions of the assembly. To this end they had legal protection and the power to impose small fines on those who resisted them.

The administration of Athens was not hierarchical in structure (though some posts carried far greater prestige than others), and the great majority of magistrates were selected by lot from candidates who volunteered themselves. Sortition was a mark of the radical democracy; in moderate democracies and oligarchies election was the norm. At Athens, going by the figure in the *Constitution of Athens,* some 1100 magistrates were chosen by lot every year (including the 500 members of the council), and about another 100 were elected, from a pool of about 20,000 citizens over 30. This involved a heavy commitment on the part of Athens' citizens, especially since it was forbidden to hold the same sortitive office twice, except in the case of the council (where a man could serve twice but not in successive years). They could, however, be selected for different offices, and in

theory, at least, they might therefore serve every other year (since they had to pass their *euthynai* after office before holding another position). The literary sources indeed suggest there was plenty of competition for office, though inscriptional evidence indicates that not all boards of magistrates were always filled, again with the exception of the council. The ten generals (*strategoi)*, the most important financial officials and other officials such as the superintendent of the water supply (*epimeletes ton krenon)* were among the 100 or so magistrates who were directly elected, regularly after being proposed by another and with or without their consent. A check on individual power in democracy existed in the form of collegiality – all members of a board of magistrates were equal.

With this mixture of selection by lot and election it was inevitable that the elected officials tended to wield the most power. Down to the 5th century the leading Athenian magistrates were the nine archons. Three archons had taken over the powers of the kings: the *basileus* (who performed religious duties), the eponymous *archon* (the civilian head of state), and the *polemarchos* (who commanded the army); and alongside these were the six *thesmothetae* (judicial officials). At some point a secretary of the *thesmothetae* was added, so that the archons formed a board of ten (ten or a multiple of ten being the regular figure for boards after Cleisthenes reorganized the citizens into ten tribes). But the power of the archons waned after 487/86, when the method of sortition from an elected short list was introduced, and as the 5th century progressed their place at the head of Athenian politics was taken over by the ten generals. The archons' position declined still further when sortition replaced election at the first stage of selection as well, and in the late 5th and 4th centuries the archons performed mainly religious and judicial functions. However, the power of the generals also declined in the 4th century, as civil magistrates took over the leading role.

Magistrates at Athens were paid in the 5th century, but payment was abolished in 411, except for the archons and members of the council. Overseas officials, who included *archontes, episkopoi* ("overseers"), and garrison commanders, were also paid.

The civil magistrates at Sparta, and in several Dorian states, were called the ephors ("overseers"). The annually elected board of five ephors wielded considerable executive, judicial, and disciplinary powers, among them the right to control the conduct of the two kings. Evidence exists for the survival of the ephorate until at least the 3rd century AD.

In the Hellenistic period, although democracy was espoused and new cities were established with a council, assembly, and magistrates, as also was the revamped Achaean League of the early 3rd century BC, the balance of power very definitely shifted towards the wealthy. The kings paid professional magistrates, and there were numerous high- and low-ranking officials. The former tended to be Macedonians and Greeks, the latter natives, though by the 2nd century BC natives were beginning to rise to higher office.

Despite the advent of Roman rule, much responsibility was left to local communities. The power of the wealthy was consolidated by the institution of wealth qualifications for office, and to the end of antiquity the cities of the Roman empire tended to be ruled by local magistrates.

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See also **Law**

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MAGNA GRAECIA

"Magna Graecia", the Latin translation of the Greek *Megale Hellas,* was the conventional name for the Greek colonies in southern Italy, which were to provide Rome with its first contacts with Greek culture. The term first appears in 5th century BC writings and is used to refer to the Greek world as a whole. The earliest instance of its use to indicate the Greeks of Italy is in Polybius (2. 39.1), writing in the 2nd century BC but referring to the banishment of the Pythagoreans and subsequent formation of the Italiote League by Greek cities in the region of Italy which was known as *Megale Hellas*. By the 1st century BC the name was in common usage among Greek and Latin authors and referred to the territory stretching from Cumae near Naples in the north to Tarentum (Greek Taras) in the south, but excluding Sicily.

The first western Greeks came from Euboea where the chief cities were Chalcis and Eretria, and their first colonial foundation was Pithecusae on Ischia in the bay of Naples. The site of Pithecusae is at the northwest extremity of the island, the acropolis being Monte di Vico, with the cemetery in the adjacent Valle San Montano and beyond it on the Mezzavia hill, a suburban area. Excavations began in 1952, under the direction of Giorgio Buchner. The best-known find is the so-called "Nestor Cup", a drinking cup of Rhodian manufacture placed around 720 BC in the cremation grave of a boy about ten years old. The cup bears a three-line retrograde inscription in the Greek alphabet of Chalcis, the second and third lines of which are hexameters, and it reads, "Nestor had a fine drinking cup, but anyone who drinks from this cup will soon be struck with desire for fair-crowned Aphrodite." This is one of the earliest examples of the Greek alphabet, and the only surviving excerpt of Greek verse from the period when the Homeric epics made the transition from oral to written poetry. Scraps of Phoenician inscriptions have also been found, indicating that Pithecusae's population included Phoenicians; indeed David Ridgway has suggested that the boy whose grave yielded the "Nestor Cup" may have been of Levantine extraction. Buchner thought that these Levantine residents were not merchants, but rather artists and craftsmen commissioned by the Greeks to work in the orientalizing style.

According to Strabo, the Eretrians and Chalcidians at Pithecusae quarreled, which may be a reflection of the hostilities between their mother cities, and the Eretrians left. In any case, the first foundation on the mainland was Chalcidian, at Cumae, opposite Ischia, some 20 km west of Naples. The site has a steep acropolis and good farmland nearby, but no harbour, though it has been suggested that an ancient harbour may have silted up. The pottery from the earliest Greek tombs at Cumae dates to shortly before 725 BC and the colony's foundation date is probably slightly earlier. The site's chief attraction was its proximity to the markets of central Italy, which bought not only Greek manufacturers but also objects from Syria and Phoenicia. Parthenope, on the site of Naples, and Dicearchia, Roman Puteoli (modern Pozzuoli), founded between Naples and Cumae (*c.*530 BC) by Samians fleeing the tyranny of Polycrates at home, were both within the Cumaean orbit. Chalcidians from Zancle (modern Messina) along with emigrants driven by famine from Chalcis and Messenians from the Peloponnese also founded Rhegium (modern Reggio Calabria), thereby consolidating the Euboean grip on the trade route up Italy's west coast.

The instep of Italy first attracted the Archaeans from the northwest Peloponnese, who founded Sybaris *c.*720 BC, which commanded a fertile plain as well as a good commercial location, for it was the southern terminus for an overland route to the Tyrhenian Sea, and was well placed to profit from the east–west trade route along the south coast of Italy. The city's wealth was famous; so also was its utter destruction by its neighbour Croton (modern Crotone) in 510 BC which diverted the river Crathis over the site. The city was refounded in 443 BC as Thurii by Athens, although the colonists were a Panhellenic group which included the historian Herodotus. Croton, founded about 710 BC commanded a fertile but smaller agricultural area as well as a small double harbour. The philosopher Pythagoras migrated there when his homeland, Samos, fell under the tyranny of Polycrates, and founded a brotherhood which supported oligarchic government and was driven out by a popular uprising in the mid-5th century BC. Croton in turn founded Caulonia (modern Monasterace Marina) on the south shore of the toe of Italy. The earliest pottery found there dates to the early 7th century BC, but nothing indicates extensive settlement before the mid-6th century. Some 9.5 km southwest of Caulonia, at Capo Colonna, is the temple of Hera Lacinia of which a single column and some foundation blocks remain. It was the meeting-place of the Italiote League until it was dissolved by the tyrant of Syracuse, Dionysius I, when he invaded Italy in the 390s.

Another Achaean foundation was Metapontum (modern Metaponto), some 48 km west of Taranto. Its sanctuary area, marked off by a circuit wall, contains ruins of temples (A, B, C, D, and E), the largest of which (temple A), dedicated to Lycian Apollo (580 BC, reconstructed 530 BC), yielded the first examples of polychrome terracotta revetments which are a feature of Archaic temple rooftops in Magna Graecia. North 3.2 km from Metaponto is the so-called "Tavole Palatine", a temple of Hera (6 × 12 columns) built about 500 BC on a low hill where there had been a native settlement. Five Doric columns on the south side and ten on the north remain standing. The last major Achaean site was Posidonia (later Paestum, modern Pesto), which was founded by Sybaris on the coast of the Tyrrhennian Sea some 80 km southeast of Cumae. The site has three well-preserved temples, the mid-6th-century "Basilica" (actually a temple of Hera), the so-called "Temple of Neptune" a century later, which was also a Heraion, and the "Temple of Ceres" (late 6th century) which was probably dedicated to Athena. The area was a centre for the worship of Argive Hera, as is suggested by the discovery of a sanctuary at the mouth of the river Sele, 13 km distant, with several temples and treasuries, the largest of which was a Heraion, a Doric building of 500 BC or slightly earlier. The sanctuary must date before the late 7th century BC, for Corinthian pottery of that period has been found there.

In the 670s Locris in central Greece founded Locri Epizephyrii on the eastcoast of Calabria. The earliest remains have not been found, but in the Classical and Hellenistic periods Locri, sited between the coastline and the hills of the interior, grew into a city covering 230 hectares, protected by a wall 7.5 km long. But the city which maintained its independence from Rome longest was Taras, or Tarentum, to give it its Latin name, remains of which lie beneath modern Taranto on a fine peninsular site with an superb harbour. Tradition told that it was founded in 706 BC by *parthenioi* from Sparta who were the bastard offspring of helots and Spartan women begotten while the Spartan army was away suppressing the revolt of Messenia. It suffered a calamitous defeat *c.*473 BC at the hands of the native Messapians, the worst defeat ever suffered by a Greek army, according to Herodotus (7. 170), but it recovered to become physically the largest city in Italy a century later, and leader of a revived Italiot League. Taras in turn, together with Thurii, founded Heraclea (433/32 BC) west of Metapontum, which marked the rebirth of the only Ionian settlement in the area, Siris, which had been destroyed in the mid-6th century by its Dorian neighbours Metapontum, Croton, and Sybaris. Siris had been founded about 650 BC by refugees from Colophon in Ionia, fleeing from the Lydians. A steep hill with a flat top at modern Policoro, the site of Heraclea, has yielded evidence of a great mudbrick wall of shortly after 700 BC, and this may mark the location of Siris. The last south Italian colony was Elea, Roman Velia, founded *c.*535 BC on Posidonian territory by Phoceans from Asia Minor after they had lost their city to the Persians. Elea was to produce one of the most rigorous Presocratic philosophers, Parmenides, the founder of the Eleatic school.

By the 4th century Oscan-speaking Sabellian people were filtering south into Apulia, Lucania (modern Basilicata), and Bruttium (modern Calabria). They captured Cumae in 421 BC, expelling or killing most of the Greek inhabitants, and eleven years later they took Posidonia, renaming it Paestum. Naples admitted its Oscan inhabitants to the citizenship and perforce allowed them a share of political control, but it remained substantially a Greek city. Elsewhere, the foray of Dionysius I in the 390s meant that Croton, Caulonia, Rhegium, and Locri fell under the rule of Syracuse and were garrisoned by Syracusan troops for 12 years before they could eject them. Taras escaped Dionysius' aggression, however, and in the 4th century ranked as the chief city of Magna Graecia, a distinction owed in part to its leading statesman, Archytas, a Pythagorean philosopher who was a friend of Plato and intervened to deliver him from house arrest when he made his second visit to Syracuse with the vain hope of making Dionysius II an ideal statesman.

The threat from its Italic neighbours spurred Taras to bring in a series of *condottieri* from Greece. A Spartan king Archidamas campaigned with some success in 343–338 BC. Alexander the Great's brother-in-law, Alexander I the Molossian from Epirus who arrived in 334 BC, achieved more, and even made a treaty with Rome, but his personal ambitions made him suspect and the Greeks were relieved when he was killed in battle in 330 BC. His territorial gains were lost after his death. The most famous of these generals was Pyrrhus, also from Epirus, who arrived with 22,500 infantry, 3000 cavalry, and a corps of 20 Indian war elephants. He won two victories at Heraclea and Ausculum over the Romans, which cost him heavy casualties and made the term "Pyrrhic victory" a byword. Then, failing to make a peace treaty with Rome, he abandoned Italy at the invitation of Syracuse to campaign in Sicily against Carthage. He returned with a reduced force in 275 BC for a last battle against Rome at Malventum (later Beneventum) where he was outnumbered and suffered a decisive defeat, after which he left Italy for good. Tarentum, as it was henceforth, held out three more years before Rome conquered it. By then the other city states of Magna Graecia were already allies of the Roman people, and, since most were ports and commanded forests in their hinterlands, they formed the nucleus of Rome's naval allies.

Rome had early connections with Magna Graecia. It learned the Chalcidian Greek alphabet from Cumae, and developed the Latin alphabet from it. It may also have learned the name "Graeci" (i.e. "Greek") there as well, for among Cumae's original settlers was a contingent of *Graioi* from a small state in eastern Boeotia. Tradition also connects early Rome with the Cumaean Sibyl whose cave was discovered in 1932, for Rome preserved a collection of oracles called the "Sibylline Books" in the temple of Capitoline Jupiter until it was burned in 83 BC; these had been sold by the Sibyl to Tarquinius Priscus, an Etruscan king of Rome. Livius Andronicus (*c.*284–204 BC), whose translation of the *Odyssey* into Latin marks the beginning of Roman literature, was probably a Tarentine Greek who was taken to Rome after the capture of Tarentum in 272 BC. But Magna Graecia did not enter the Roman imperial orbit until the Second Samnite War when a Roman army besieged Naples (327/26 BC) which was surrendered by a pro-Roman group in the city, and signed a treaty of alliance on very favourable terms. By the 290s Rome's web of alliances stretched into Lucania and Apulia and cities which had supported the Samnites were conquered. Velia was taken in 293 BC. At Paestum a Latin colony was installed in 273 BC, and a forum, complete with a temple of Jupiter Capitolinus, was cut into the middle of the city plan. The fall of Tarentum and the peace treaty that followed probably mark the end of the Italiote League. However, when Hannibal invaded Italy and defeated Rome disastrously at Cannae (216 BC), Tarentum, Thurii, Croton, Locri, and Metapontum, all leading members of the old Italiote League, went over to the Carthaginians, while further north the alliances remained firm. Cumae, which had held the status of Roman "citizenship without the vote" since its capture by Rome in 334 BC, resisted all pressure to defect, and the alliance with Naples remained firm. In the south, however, only Rhegium remained a loyal ally.

Details of Rome's settlement of Magna Graecia after Hannibal's defeat are scant, but Tarentum, which had been sacked in 209 BC, was put under military government for a couple of decades after the war. Croton and Thurii received colonies. A good deal of land was confiscated, and became *ager publicus,* land owned by the Roman people, much of which was to be allotted to Roman settlers by the Gracchi brothers, and later by Pompey and the emperor Nero. The Social War between Rome and its allies in the early 1st century BC marked the end of the Greek cities as nominally free states: after 89 BC they formed part of the Roman state either as colonies (*coloniae*) or municipalities (*municipia*). The final act came with the emperor Augustus who divided Italy into 11 regions. Magna Graecia was broken up among three regions and lumped together with its ancient enemies, the Sabellian peoples.

But that was not quite the end. In the years after Hannibal's defeat, the interest of Rome's elite in Greek culture increased rapidly along with its wealth, and villas sprouted around the bay of Naples. Greek culture, however, now flowed for the most part directly from Greece and not through the medium of Magna Graecia.

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See also **Italy**

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MALLIA

Town in Crete

The archaeological site and modern town of Mallia is located on the island of Crete, less than 40 km east of Herakleion. It lies within a narrow plain on the northern coast that is bounded to the south by the Dikte mountain range dominated by Mount Selena (1559 m), the site of the Bronze Age peak sanctuary, which rises steeply behind the little church of Prophitis Ilias. From ancient times to the present day the area surrounding Mallia, including the plain, the mountains, and the valleys leading to them, has been characterized by its rich agriculture. Today, the produce includes potatoes, olives, and other fruits, as well as cereals. The herding of sheep and goats as well as traditional cheese making continues to be practised in the

mountains to the south. Fishing is also an important activity along the coastal plain and there is evidence of two ancient harbours in the vicinity that would have served both fishing and sea trade in Minoan times.

Mallia is famous today as the site of the third greatest Minoan palace after those at Knossos and Phaestus. The presence of antiquities at the site was first discovered in the late 19th century after a shepherd found some gold leaf by the sea and the local inhabitants began digging for Minoan treasure. In 1915 Joseph Hazzidakis, then ephor of Cretan antiquities, began a more formal exploration of the site. Since 1922, however, systematic excavations have been undertaken by a team from the École Archéologique Française d'Athènes, led by Fernand Chapouthier, Jean Charbonneaux, and others. By 1932 the excavation of the palace was completed. The French archaeologists continue their excavations in the Minoan town and ancient cemeteries by the sea, publishing the results of their investigations in the series *Études Crétoises*.

While the palace at Mallia lacks the mythological fame of Knossos and is less sumptuously decorated and smaller in size (nearly 8900 sq m or about the size of the palace of Phaestus), it is beautifully sited with a view of the sea. It is also remarkable for having its ground plan preserved virtually intact and, unlike Knossos, it remains unreconstructed. Concrete and iron supports as well as protective roofs have been used only where necessary to preserve the Minoan buildings, providing visitors with a unique opportunity to experience the ancient architecture without controversial modern interventions.

The earliest traces of habitation at the site of Mallia are prepalatial, dating to the Early Minoan III–Middle Minoan IA period (*c.*2300–1900 BC). The first phase of the palace, known as the Old Palace, dates from the Middle Minoan IB-II period (1900–1700 BC) and is contemporary with the Old Palaces at Knossos and Phaestus – all of which were destroyed by a large earthquake at the end of the Middle Minoan II period. The Old Palace at Mallia is known mainly from some large plastered rooms in the northwestern corner that were richly appointed. It was from there rooms that the famous sword with the pommel covered by gold and decorated with an arched acrobat in low relief, now in the Herakleion Meseum, was found. Also dating from the time of the Old Palace is the unique double row of four circular structures, each built around a central pillar that probably supported a roof, which is located in the southwestern corner of the palace. These structures were most likely used as silos or granaries.

Most of what is visible today, however, belongs to the New Palace, which dates from the Middle Minoan III–Late Minoan IB period (*c.*1700–1425 BC). Except for the fact that there is no monumental theatral area, this structure has all the characteristics of a typical Minoan palace, including a central court with an unusual open pit for burnt offerings, storage magazines with large pithoi and channels to collect drippings of oil, and a number of ritual chambers including a pillar crypt in the west wing. In one of these chambers, on a floor dating to the Old Palace, were found the ceremonial leopard's-head axe and the large sword with a gilded blade and pommel of crystal and amethyst, both outstanding examples of Minoan craftsmanship now on display in the Herakleion Museum. Some of the more unusual features of the palace include the pillared hall to the north, probably used for banquets, and the great circular *kernos* (offering-stand) stone, located in the southwestern corner of the central court, which has a large hollow at the centre and 34 smaller ones around the circumference that may have been used for the offering of first fruits to a deity. The New Palace was destroyed in the Late Minoan IB period and subsequent pillaging left few objects of value from this phase for modern excavators. One exception is a remarkable triton shell, carved from chlorite with relief decoration, that was found in the northeastern corner of the palace and now resides in the Archaeological Museum in Agios Nikolaos.

To the north of the palace, French excavators have also brought to light a large open area with a plaster floor, called the Agora, as well as a series of plastered basement rooms with benches, known as the Hypostyle Crypt. The lack of significant finds from these unique structures, which belong to the period of the Old Palace, has led to the suggestion that they served as a kind of council chamber. The Minoan town surrounding these structures and the palace itself is composed of quarters (*quartiers*) belonging to different periods of use. Most of the houses within these quarters are modest but include a number of well-preserved examples of Minoan domestic architecture. An exception, however, is Quartier Minoan whose special significance is indicated by rich finds and buildings from the period of the Old Palace that include a heireyphic archive, a small sanctuary with its furnishing still in situ, and the oldest roofed lustral basin in Crete.

The cemeteries of ancient Mallia are located to the north of the settlement along the seashore. They include a number of early ossuaries as well as some tombs of the Late Minoan III period (*c.*1390–1070 BC). Most significant, however, is the cemetery of Chrysolakkos (pit of gold), a large rectangular burial enclosure dating to the Middle Minoan IB-II period (1900–1700 BC). The facade of this building is constructed of partly dressed limestone blocks which are among the earliest examples of ashlar masonry on Crete. Although the Chrysolakkos cemetery was plundered by local tomb robbers in the 1880s, it is famous as the source of the well-known gold pendant of two conjoined bees or wasps with a honeycomb (dated *c.*1700 BC), now in the Herakleion Museum, that was found by Pierre Demargne in 1945. Based on comparisons with this piece, Reynold Higgins once suggested that the hoard of Minoan gold jewellery known as the Aegina Treasure, acquired by the British Museum in 1892, also came from the Chrysolakkos. New finds from Aegina, however, make this theory unlikely. On the beach of the west of the Chrysolakkos, there is also evidence for a sizeable Roman settlement including houses and tombs as well as an early Byzantine basilica.

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See also **Crete; Minoans**

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MANI

Region in the southern Peloponnese

For the past 1100 years the names Maïni, Braccio di Maina, Vrachion tis Manis, and Mani have demarcated the land which occupies the middle of the three peninsulas in the southern Peloponnese. The peninsula, 75 km in length and 10–20 km in width, consists of the Taygetus massif, the Mediterranean end of the Alpine branch of the Pindus chain. Its southernmost point is the promontory of Tainaro or Cape Matapan, at the same lattitude (36 degrees) as southern Italy and the straits of Gibraltar. The ancient name of the Mani was Lakoniki (Laconia).

During centuries of historical upheaval the geography of this isolated and mountainous area, deprived of important natural resources, made it a safe refuge and hideout, the home of a large population with a unique way of life with primitive features. Thus it came to stand out as a separate geographical, historical, and cultural entity.

The Taygetos mountain range divides the Mani into the "sunny" (east) and "shady" (west) parts. The region is also divided traditionally into several large sections with distinctive characteristics. The northwestern section or Outer Mani has a rich landscape and consists of the lower slopes and highest summits of Taygetus (Profitis Ilias, at 2407 m, is the highest peak in the Peloponnese). The northeastern section Outer Mani has a rich landscape and consists of the lower slopes and highest summits of Taygetus (Profits Tlias, at 2407m, is the highest peak in the Peloponnese). The northeastern section or Lower Mani has a varied landscape and fine bays, including both the main port of Gytheion and the rocky gorge with the Passava fortress. The southern part of Inner Mani is occupied by the limestone crystalline range of Kato Taygetos, with an arid rocky coastal plateau to the west. It slides down to the Mediterranean at the tiny promontory of Tainaro, which in antiquity was considered to be the gate into Hades.

Archaeological finds (from several coastal caves) indicate that the area was inhabited in the Palaeolithic era, in the Neolithic period (4500–2800 BC, Diros caves, etc.), in the Helladic period (2800–2000 BC, a number of settlements on low hills and plains), and the Middle and Late Helladic periods, when the Achaeans held power. Homer's *Iliad* 1 refers to eight towns in the Mani at the time of the Trojan War. At the same time Cape Tainaron was already an important place of worship dedicated to Helios-Apollo.

The Dorians invaded Lakonike in the 12th century BC, originally settling in Sparta and expanding gradually along the coast. They hemmed in the local populations, incorporating them as *perioikoi* ("dwellers around") into the military and political system of the Spartan city state. It appears that the *komes,* that is, the small towns and agricultural communities of the peninsula, retained some autonomy and numerous religious practices. Gytheion became the main Spartan port, while at Cape Tainaron, dedicated to the chthonic god Poseidon, there was a sanctuary with a sacred precinct for the conducting of the dead and an oracle of the dead.

When Sparta's power declined, the coastal towns of Lakonike increased their autonomy and from the beginning of the 2nd century BC, with the support of the Romans, formed the League of the Lacedaemonians, with ten towns in the Mani itself. During the Roman period this federation was renamed the League of the Free Laconians and prospered thanks to trade (in marble, porphyry, etc.). Violent earthquake (AD 375) and Gothic raids (AD 395) signalled the end of the ancient period.

YANIS SAITAS

See also **Peloponnese**

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MARATHON, BATTLE OF

Battle fought between Greeks and Persians in 490 BC

In 490 BC a large Persian expeditionary force under the experienced commander Datis landed at Marathon in Attica not far from Athens. The Athenians and their Plataean allies under Miltiades repulsed the invasion, and so won one of the most famous battles in history. Not all agreed. The renowned historian Theopompus wrote that "the battle at Marathon was not what everyone keeps repeating it was, and all the other things that the city of the Athenians brags about and uses to dupe the Greeks" (in Jacoby, 1962, fr. 153, pp. 569–70; translation by the author). Hence the very nature and significance of the battle is worth reconsidering. In 490 BC an Athenian army some 10,000 strong confronted a much stronger force of Persian infantry and cavalry. The Athenians sent the runner Pheideppides to Sparta requesting help, but in the event they and their Plataean neighbours faced the enemy alone. At Marathon the Athenian and Plataean armies, under the command of Miltiades, waited drawn up in a strong position against which the Persians could not attack even with their superior numbers. Rapidly running out of time, Datis decided to sail direct against Athens. He chose the first night after the full moon to reembark his cavalry, a time-consuming process, and then the majority of his infantry. To cover his movements he stationed the rest of his troops where they could serve as a substantial rearguard. Datis' bold move was revealed by some Ionian deserters who approached the Athenian camp and said only "the cavalry is away". Fully realizing that Datis was withdrawing, Miltiades ordered his men to their places, ready to attack at first light. Dawn caught the Persians in the middle of their operations, without the time needed to embark their rearguard.

Miltiades promptly ordered the assault, the Athenians on the right and centre and the Plataeans on the left. Their centre was thin, but the wings deeper and stronger. Their line was equal in length to the Persian one, which strongly suggests that the numbers actually engaged were roughly equal, with the Persians probably enjoying some numerical superiority. Little is known of the Persian dispositions except that the Persians and Sacae, a warlike people from Central Asia, formed the very strong centre of the line, which was about 1600 m distant from the Greeks.

After a favourable sacrifice, the Athenians began their advance. Once within bowshot of the Persians, they charged on the run, the boldness of their attack taking the Persians by surprise and reducing the effectiveness of their archers and slingers. Once engaged, the Persians broke the Athenian centre after hard fighting and then pursued the survivors. At the same time the Greek wings routed their opponents, whom they allowed to flee. The Athenians and Plataeans next swung their victorious wings against the Persians and Sacae, converging on the centre in a pincer movement. The Persian centre was already in some disarray owing to the absence of those still pursuing the defeated Athenians opposite them. The Athenians and Plataeans crushed both of the exposed flanks of the Persian centre, whereupon the entire Persian army broke and ran. Some fled towards the great marsh trying to reach the safety of their camp. In their confusion and terror they lost their way and became mired in the marsh, where they suffered their greatest losses. Meanwhile the Athenians pursued the remnant of the centre, cutting them down in their flight until some of them reached the sea. A fierce struggle swirled around the ships, which took on board as many fugitives as possible before shoving off the beach. Although the Athenians failed to stop them, they nevertheless captured seven ships. The casualties were stunningly uneven. The Persians lost some 6400 men, a high proportion of those engaged. Of the Athenians, 192 fell, primarily those holding the centre of the line. Plataean losses are unnoted. After cremation, the Athenian dead were buried in the Soros and the Plataeans in a tumulus nearby.

Miltiades forestalled Datis' dash to Athens by a forced march. Thus thwarted, the Persian fleet returned to Asia Minor. The campaign of Marathon was over. Nonetheless, controversy still surrounds the Persian cavalry. Herodotus repeatedly emphasizes the importance of cavalry in Persian planning, but no ancient source, literary or epigraphical, mentions horsemen in combat at Marathon, hence they could not have been a factor in it. Their absence is further proof that the battle was a rearguard action.

The Athenians celebrated their victory in an outpouring of literature and art that still inspires today. The glory was not solely Athenian, but Greek. In literature they crafted the famous Marathonian epigrams, brilliant gems of poetry that commemorated the day when Athenian soldiers "saved Greece from seeing the day of slavery". Even the great tragedian Aeschylus adorned his tombstone not with allusions to his plays but with the notice that he had fought at Marathon. In art the Athenians honoured their patron goddess and themselves by minting exquisite silver tetradrachms portraying Athena crowned with an olive wreath, a sign of simplicity that contrasts with oriental pomp. Prominently displayed in the Stoa Poikile in the Athenian Agora was a dramatic painting of the battle depicting its progress from the outset through the clash of the two armies to the destruction of the Persian force. The most splendid monuments of the victory were architectural. The Athenian treasury at Delphi, which still stands in quiet beauty and dignity, was built from the spoils of the battle. On the Acropolis of Athens stands the Ionic temple of Athena the Victorious, small, elegant, a graceful memorial to a fateful day. Even the modern marathon races of 26 miles have their inspiration in the run of the Athenian messenger who brought news of the victory from Marathon to Athens.

In one sense, Theopompus was right. The battle about which Athens so boasted was not quite the supreme victory that is claimed. It was instead a splendid rearguard engagement of grand proportions. The significance of Marathon was indeed military, but it was also a symbol of the pride of the Greeks in their way of life and a justification of their love of freedom. That is also the legacy of Marathon to the world today, and the years have not dimmed it.

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See also **Persian Wars**

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MARBLE AND OTHER DECORATIVE STONES

Many different decorative stones were used by the ancient Greeks and Romans for construction, sculpture, and small items. The sedimentary rocks, limestone and gypsum, were most important in construction, but the most significant and evocative material was the metamorphic rock marble. Igneous rocks, such as granite and lavas, were used in construction and for small items. We start first with the sedimentary rocks.

Limestone generally forms in the sea, from the accumulation of shells, some microscopic, or by direct chemical precipitation. Greece is particularly rich in limestone because 250 to 145 million years ago it was a region of shallow tropical seas, far from mountains, and limestone production is favoured in this environment. Most limestones are fine-grained and grey, but white, black, red, and even green varieties are known. Limestone is generally layered with beds a few centimetres to a few metres in thickness. The only important mineral in limestone is calcite (calcium carbonate), but the crystals are commonly too small to be seen. The calcite in some limestones is replaced by the related mineral dolomite. This produces a rock that is slightly harder than limestone, but otherwise very similar.

Although much limestone is uniform, breccias are common in many areas. They consist of angular blocks of limestone, set in fine-grained red mudstone. These are formed in limestone caves that are produced by the solution of rock in percolating rainwater. Blocks of limestone fall from the roof and accumulate on the floor of the cave, together with a fine red mud that is the insoluble residue of the limestone. The mixture is later cemented by calcite to form a solid breccia.

Travertine was another type of limestone exploited as a decorative stone and for construction. This commonly porous rock was deposited around many springs in ancient Greece, but has often been completely removed. It is fine-grained and grey when initially deposited, but may develop large crystals later. The fossilized remains of plants that grew around the springs are often preserved in the rock. It forms by the loss of carbon dioxide gas from the spring waters and the consequent precipitation of calcite. Stalagmites, stalactites, and dripstone form in caves in the same way and were also used sparingly as decorative stones.

Gypsum (alabaster) is a soft, pale brown, yellow, or pink rock that may be layered. It was used in Minoan times as a decorative stone in the palace at Knossos, at Akrotiri on Thera, and elsewhere, but soon lost favour. The rock is soluble in water and hence was used only inside buildings: gypsum blocks left open to the weather after the excavations have lost more than 1 cm of material in 30 years. Gypsum was obtained from quarries on the hill of Gypsadhes near Knossos and in the underground mines of Gortyn. It was formed by the evaporation of seawater when the Mediterranean dried up about 6 million years ago. Bands in the rock formed during deposition and were folded later by tectonic forces. The presence of calcite or dolomite impurities in some samples increases their strength and resistance to erosion. The finer-grained varieties of gypsum were used for facing stones and for floor slabs, whereas the coarse-grained varieties were used in columns. So-called "Egyptian alabaster" is actually a form of limestone.

Marble is limestone, or more rarely, dolomite whose structure and mineralogical composition have been changed by the action of heat and pressure (metamorphism). Quarry workers and some archaeologists often refer to a number of other softer rocks as marble as well, such as limestone, lavas, and serpentinite, but to a geologist only metamorphosed limestone or dolomite is marble. Marble was an important material for sculpture and building materials in antiquity because it was relatively easy to work, produced a fine edge, and was abundant in many parts of the Aegean region. The ancient Greeks were more interested in white or grey marble, but the Romans also exploited coloured marbles extensively.

Marble is produced in the earth at depths of several kilometres. The source of the heat is the natural increase in temperature with depth in the earth. As the limestones are buried under other rocks, the temperature increases at a rate of about 1°C for each 30 metres. The metamorphism induces the recrystallization of the calcite so that the crystals are visible to the unaided eye and can also lead to the formation of new minerals, and hence change the colour of the rock. The hot rock is much weaker than cold limestone, hence it is commonly deformed without cracking by natural stresses in the earth.

The textures of marble are a combination of those originally present in the limestone and those produced during metamorphism. Layering and breccias in the original limestone are inherited by marble, but metamorphism may deform or smear them. However, deformation can produce new layering and new breccias can form in caves in the marble, giving a myriad of varieties of textures, and textures within textures. Metamorphism can also produce another texture, veining. In the rock there is often a thin film of water between the crystals that is saturated with calcite in solution. If there is a sudden loss of pressure, or increase in stress, then a crack can open up that may soon be filled with relatively pure, white calcite. These veins are a good way to distinguish marble from limestone.

The colour of marble reflects the amounts of minor minerals present because pure calcite and dolomite are white. Red is produced by the mineral haematite, from iron oxide impurities. Grey and black are commonly due to graphite, produced during metamorphism from organic matter, such as plant or animal remains. These colours can also be produced by magnetite or manganese oxides. The presence of the minerals chlorite, muscovite mica, or serpentine gives green marbles.

White and pale grey marble occurs throughout the Aegean region, but was exploited extensively at only a few locations, for historical and geological reasons. The quarries of Attica supplied the white and grey marble used in Athens. Mount Penteli produced the best white marble, whereas the grey came from Hymettus, but both mountains contain white and grey. The best-known white marble of the Cyclades was that of Paros,

known as *lychnites,* because it was mined underground by the light of a lamp. This marble is very pure so that quite thick pieces are translucent. Naxos also produced large quantities of a coarse-grained white marble. The quarries of white, dolomitic marble on Thasos were some of the largest in antiquity. Their exploitation reached a maximum during Roman times, when the marble was widely exported. Pale grey streaky marble from the island of Marmora was very popular since it could be extracted in large blocks.

The best-known green marble was known to the Romans as Marmor Carystium and more recently by the Italian name of Cipollino, because it resembles an onion in section. It was produced from a number of quarries in southern Euboea, around Carystus. It was used for monolithic columns, public fountains, and wall-facings in Roman and Byzantine buildings from the 1st century BC to 7th century AD. It was widely exported all around the Mediterranean and as far as Britain. Cipollino is made of layers rich in calcite separated by layers rich in the green minerals muscovite and chlorite. Quartz and feldspar are also present and stand out from the other softer minerals after erosion.

Rosso Antico is a fine-grained, red to purplish red marble, with some varieties streaked with white veins and patches. It was first extracted from quarries on the Mani peninsula in Minoan and Mycenaean times, between 1700 and 1300 BC, for use in architecture and for stone vases. It was not in regular use again until about AD 50, when as Lapis Taenarius it is found in Roman and later in early Christian buildings, decorating walls and floors. Reused pieces were popular in the Middle Ages and later for floor decorations, and were frequently mistaken for imperial porphyry, an igneous rock from Egypt. The Rosso Antico quarries also yielded white, grey, and green marble, and were also exploited very early, for example in the treasury of Atreus at Mycenae.

Other variegated marbles were exploited at many locations, but in small quantities and mostly during Roman times. The best known were on Skyros, the Fior di Pesca of Euboea, the Africano of Teos, and the Portasanta of Chios. Yellow marble was imported from the imperial quarries in Tunisia.

Verde Antico is the name given by Italian masons, from the Renaissance onwards, to a green decorative stone that was first used in the 1st century AD, but was most popular in the 5th–6th centuries, after the imperial porphyry quarries in Egypt closed (about AD 450). Its ancient name was Marmor Thessalicum or Marble of Atrax. The quarries lie on a small hill beneath the western slopes of Mount Ossa, just north of Chasambali. Verde Antico is a conglomerate composed of rounded serpentinite and marble blocks set in a fine-grained matrix of similar composition (the geological term for this rock is ophicalcite). The rock is layered, with contrasting sizes and compositions of blocks in the different beds. The blocks were transported by rivers, but could not have traveled far because serpentinite is a very soft rock and hence erodes readily. Therefore, this rock probably formed very rapidly in a broad river valley surrounded by high mountains of serpentinite. This rock was not formed recently, but probably during the Tertiary period and is a variant of the conglomerates seen in the Meteora.

Of the igneous rocks both lava and granite were exploited in antiquity. A widely used green porphyritic rock was known to the Romans as Lapis Lacedaemonius, to Italian masons as Porphido Verde Antico, and to us as Spartan Basalt or Andesite. It was popular in Minoan and Mycenaean times for stone vases and sealstones and under the Roman and Byzantine empires for the decoration of walls and floors. According to Pausanias. ''These stones were used for decorating temples, swimming pools, and fountains.'' Later, Roman and Byzantine stones were reused extensively, for example in St Mark's Venice, and Westminster Abbey, London, until the late 18th century. Spartan Porphyry is a porphyritic andesite and comes from a lava dome 2000 metres long of mid-Triassic age (about 230 million years ago) near Krokeai, Laconia. Such domes form when viscous lava erupts quiescently on to the surface. The prominent crystals in the lava are plagioclase, now metamorphosed to a fine-grained mixture of albite and green epidote. Sometimes several plagioclase crystals started to crystallize from the same point, to give rosettes of crystals. In parts of the dome the fine-grained matrix of the rock has been reddened by the oxidation of iron minerals to haematite. This rock is generally highly fractured, with most blocks less than 50 cm in diameter. Similar porphyritic lavas were also exploited locally on Samothrace.

Granite was an important decorative material for the Romans and was traded widely throughout the Mediterranean. There were two major sources of granite in the Aegean: Marmo Misio (or Granito Bigio) from near Kozac, 15 km northwest of Pergamum, and Marmo Troadense (or Granito Violetto) from Mount Cigri, 10 km southwest of Ezine. Both rocks are grey, fine-grained, and principally composed of quartz, feldspar, and biotite. Both intrusions are about the same age as the volcanic rocks in the region. Plutonic rocks such as granite and lavas such as imperial porphyry from other Roman imperial quarries were imported into Greece in small quantities, especially from Egypt.

It is only recently that the susceptibility of marble and limestone to erosion by pollution has become a problem. The most direct problem is the solution of the mineral calcite in the marble by strong acids (for example sulphuric and nitric acids) present in polluted rain. Some acid gases in the atmosphere also directly attack marble. The most common end product is gypsum, which is more soluble in water than calcite. The transformation of calcite to gypsum also involves an increase in volume, hence the surface of the marble flakes off. Another problem relates to algae that live just below the surface of the marble. They feed off petroleum products deposited from the air and produce acid waste products, with the same results. Sandstones cemented with calcite are also attacked in the same way.

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See also **Geology**

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MARRIAGE

Marriage has been a central cultural and economic institution of Hellenic society since antiquity and, while both the practicalities and the perceived function of marriage have undergone various changes, it has demonstrated a remarkable continuity through time. Indeed it has been claimed that the pivotal role of marriage and the family, together with religion, has been a crucial factor in sustaining Greek identity and culture, particularly through the Tourkokratia (see McNeill, 1978: Sanders, 1967).

For antiquity, and for Classical Athens in particular, marriage was informed by two dominant and purposive imperatives: first, the production of legitimate children (*gnesioi,* contrasted with bastards, *nothoi*) for the husband's *oikos* (household, family) and of legitimate citizens for the state; second, the formation and maintenance of social and interfamilial alliances.

The first point finds its mythical illustration in the Athenian legend of Cecrops who, long ago, "found men and women having sexual intercourse at random, so no son could identify his father, and no father his son" (scholion on Aristophanes, *Plutus*, 773). Cecrops rectified this promiscuity by inventing the institution of marriage. Here the critical concern was to clarify lines of patrilineal descent and inheritance, a concern important especially for democratic Athens where legitimacy of birth was a prerequisite of citizenship. The flowering of the Athenian empire in the 5th century BC and the concomitant importance of being Athenian were reflected in the state's unusually narrow marriage regulations; before Pericles' law of 450/51 BC Athenian birth was a requirement of the father only, but after this both parents of legitimate children had to be Athenian. Thus citizen marriage at Athens was endogamous, and exogamy could have legal consequences (Demosthenes 59, a prosecution from the 4th century BC which deals with an Athenian citizen allegedly living as if married with an alien woman, is a good example of the practical consequences of this law against mixed marriages). One product of the importance of legitimacy was the emphasis on female chastity. Brides were expected to be virgins (the Greek word *parthenos* denotes both the unmarried girl and the virgin, social and physical categories that, preferably, coincided) and wives were expected to be chaste.

Also important and perhaps a particular concern for the rich elite was the notion that marriage could forge ties, concentrating power and wealth within social groups. Despite anxieties about incest, endogamy extended to "keeping it within the family"; marriages between first cousins, niece and uncle, and even half-siblings were common and, in Sparta at least, marriage between uterine siblings was sanctioned (Philo, *On Special Laws,* 3. 4. 22). Indeed kinship was a positive factor for marriage: one legal speech brings as proof of a family quarrel the fact that an uncle has not married his daughter to his nephew (Isaeus, 7. 11–12), while another describes the reciprocal giving in marriage of female relatives within a family (Demosthenes, 59. 2). Friendship obligations were important too: another speaker in court describes how his sister was given in marriage to a friend of his dead father as a favour (Isaeus, 2. 3–5). These cases highlight the fact that an Athenian girl was given in a marriage over which her male natal guardian (*kyrios,* normally the girl's father or, if he was dead, her brother) exercised a formal control; indeed a wife's natal *kyrios* had the power to revoke her marriage, demanding the return of both woman and dowry, and divorce and remarriage were frequent. It was possible too for women to be the objects of bequests in wills (Demosthenes, 27. 5; 45. 28; Diogenes Laertius, 5. 11–16).

Marriage then at Athens can be seen as a form of exchange between households in which women were given out, conditionally, to bear children for their husbands and citizens for Athens, and was crucial for the creation of new households, for the continuation of descent groups, for the city's stock of citizens, and for citizens themselves for whom only marriage provided legitimate heirs.

For women too marriage was crucial and was seen as the fulfilment of a culturally prescribed role, indeed as the only proper role available to women, a notion that has gone largely unchallenged until the very recent past. While temporary celibacy was required of priestesses during the period of religious office, no respectable alternative to marriage and motherhood was available to women, either social or biological; the Greek medical writers envisage a horrendous fate for girls deprived of sex and babies (see in particular the *Peri Partheneion,* part of the Hippocratic corpus which remained influential throughout the medieval period). So strong was the notion that marriage was the only fitting career for a woman that girls who died unmarried were commemorated as brides of Hades.

In ancient Greece the state played no formal role in marriage which was essentially a private arrangement between families. As a result, identifying the definitive moment of the marriage ceremony (*gamos*) becomes somewhat problematic; no state or religious official pronounced the couple married and there was no marriage certificate. The basic signifier of marriage may simply have been for a couple to live together as if married (*synoikein)*, and lawcourt speeches of the 4th century BC concerned with legitimacy and inheritance attest to the potential difficulty of deciding whether or not a marriage had taken place. The act of bethrothal (*engue),* however, in which the bride was bestowed for the ploughing of legitimate issue, marked the first step of marriage for an Athenian, and only children born of a woman so betrothed, apart from those of an *epikleros* (heiress), were legitimate (Demosthenes, 46. 18; Isaeus, 8. 19). *Engue* was not an irreversible contract (there was no notion of "breach of promise"), but normally was followed by the *ekdosis,* the handing over of the bride by her natal *kyrios* to her new *kyrios,* her husband. *Ekdosis* could happen some time after *engue;* Demosthenes reports that his sister's marriage was delayed by ten years since she was an infant when betrothed, a reminder that girls were married young, ideally shortly after puberty, perhaps to ensure as far as possible the bride's virginity.

The bride dedicated her childhood toys and a lock of hair to Artemis and was bathed and veiled. Then followed the sacrificial wedding feast during which libations were made to the gods, particularly Hera, the goddess of weddings and marriage and whose own divine union with Zeus was celebrated

throughout Greece. The bride was unveiled before her husband who accepted her with his right hand and led her to his house.

Marriage in militaristic Sparta differed markedly from that in democratic Athens. Spartan men were expected to marry in their twenties but lived apart from their families in all-male barracks until the age of 30, encouraged to visit their wives only occasionally, at night and by stealth. The Spartan marriage ceremony was characterized by the real or symbolic rape of the bride who, hair cropped and dressed as a boy, waited in the dark to receive her new husband. Spartan attitudes to female chastity also differed from those of the Athenians. Many texts suggest a more flexible marriage bond and a more relaxed approach to extramarital sex and, while the production of Spartiate soldiers was of vital importance to the state, Spartan custom held that all sons belonged in common to fathers and vice versa. This unconcern with legitimacy was related perhaps to Sparta's inheritance and landowning patterns; until the late 5th century BC the state controlled the allocation of land and thus the male line was not important, a good indication of the way in which marriage and martial behaviour reflect upon other political and social institutions.

Hellenistic Egypt reveals new emphases on marriage as a union of two individuals and on the sexual fidelity of both partners; an Alexandrian marriage contract from 92 BC insists that the husband may have neither concubines nor catamites (Tebtunis papyrus 104). Furthermore, the image of the married couple became a significant feature of Hellenistic rule. Marital alliances among the elite were a traditional feature of Greek society, not only of the royal houses of Sparta and Macedonia but also of aristocratic Athenians, but Hellenistic queens acting as their husbands' consorts, such as Arsinoë the wife of Ptolemy II Philadelphus, took the principle a stage further. Arsinoë was also Ptolemy's sister, and such unions were a strategy for consolidating power within one family, following the Egyptian model. In Byzantium several imperial brides, although not born royal, exercised considerable political and religious influence through marriage and motherhood, often wielding most power as widows. Irene in the 8th century was regent for 5 years, while in the following century Theodora II was regent for 14 years, both women achieving and maintaining power by manipulating their positions as wives and mothers.

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See also **Adultery; Celibacy; Children; Divorce; Dowry; Kinship; Men; Women**

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MASSILIA

City in southern France

The city of Massilia (modern Marseilles) was located to the east of the Rhône delta, at the end of a long inlet with its entrance facing the Mediterranean sea, in the territory of a Ligurian tribe, the Segobriges. Its position enabled it to participate in, and control, the trade in precious metals from the eastern coast of Spain and the tin route from Britain. The colony was founded by Phocaeans from Asia Minor *c.*600 BC after they were forced out of their homeland by the Persians. According to Pompeius Trogus, a Gaul of the Vocontii, the foundation legend for the city current in the 1st century BC related that the Greeks sailed up the inlet and there met a tribe of Ligurians led by their king, Nannus. After some negotiation it was agreed that Phocis (or Protis) would marry Gyptis, the daughter of the king, and that the couple would settle down in Ligurian territory.

The site was known to the Greeks before the establishment of a settlement there, since it had previously served as a trading post for both the Rhodians and the Etruscans on their journeys to and from Spain. At first the inhabitants of the new city were oriented towards the sea, engaging in fishing, trading along the Mediterranean coast, and piracy. Their new settlement served as a base for the trade in metals and as a staging post for Greek traders making the journey from their homeland, with stops at the Sicilian cities to the east, or Massilia, before reaching their final destination. Perhaps it was part of a strategy developed in conjunction with the Phocaeans of Rhegium, who controlled the Straits of Messina, to funnel trade along the northern routes in the Mediterranean in the heyday of Ionian commerce in the late 6th and early 5th centuries BC.

Massilia became very prosperous as a result of this trade. A variety of pottery from the early period has been found at the site, indicating far-reaching contacts with the Greek homeland. Massilia itself soon established colonies in Spain and on the Ligurian coast, including Emporium (Ampurias) and Nicaea (Nice). It also founded Alalia on Corsica *c.*565 BC, perhaps to allow the Phocaeans to avoid the trade route along the coast of north Africa controlled by the Phoenicians. As a result, Massilia soon became involved in struggles with Carthage and its Etruscan allies in the western Mediterranean, which

continued throughout the 6th and 5th centuries; its new colony on Corsica was abandoned in 540 as a result.

Archaeological evidence from recent excavations presents a interesting sequence of pottery at Massilia. Initially, Ionian, East Greek, and Corinthian ceramics were found on the site. This changes quite suddenly in the second quarter of the 6th century BC when Etruscan wares predominate. Soon after that they decline, and in the middle of the 6th century Attic imports take over, especially flourishing after 530. Earlier prestige gifts present at native inland sites consist of Rhodian bronzes, perhaps carried by an overland route through the Alps from Italy; Athenian pottery is not present. Suddenly in the second half of the 6th century wares from Attica appear in the interior. It seems that Athenian ceramics were passing through Massilia, then being transported upriver to sites in the hinterland. The city had begun to broaden its focus of trade, expanding its interests inland rather than concentrating all its commercial efforts on the sea.

In the second half of the 6th century BC Massilia itself developed a strong pottery industry, producing amphorae to transport local wine. In return for this local beverage and luxury goods from Greece, it received grain, amber, and tin. The growing trade up the Rhône valley influenced both the Hallstatt and La Tène cultures of the Celts. Ligurian and Iberian sites have produced much imported pottery from the late 6th century as well as providing evidence of Greek influence in other areas, such as fortifications, architecture and art, cultivation of the vine and olives, and perhaps even a law code.

Massilia was well known in antiquity for the stability of its oligarchic form of government with its council of 600 (*timouchi*), an additional minor council of 15 members, and three top magistrates, as well as a body of strict Ionian laws transplanted from its homeland (Strabo, 4. 1.5). Aristotle wrote a work, the *Constitution of Massilia,* now lost, which outlined the structure of its government. Massilia retained the cults of its mother city, such as Artemis of Ephesus, Delphinian Apollo, Cybele, and Leucothea. In addition, it maintained a strong connection with its Greek homeland, as well as advertising the city's prosperity and success, by construction of the Treasury of the Massilians at Delphi. Its wealth is also evident from the attractive series of coins minted in the city.

Prosperity appears to have lessened in the 5th century BC as the result of the expansion of Carthaginian power in the Mediterranean (although this view may be altered by finds from recent excavations in the city), but it continued to develop its own products for export, such as wine and olives. The Hellenization of the hinterland was completed by the second third of the century, but the Phocaean role as a civilizing force lasted until at least the late 5th century.

By the 4th century BC trade once again flourished, particularly after the voyage of Pytheas, a Massilian astronomer and geographer, who sailed through the straits of Gibraltar, exploring the west coast of Africa and circumnavigating Great Britain, drawing on the nautical knowledge and geographical information contained in the 6th century work, the *Periplous*.

In the Hellenistic period the Massilians sided with Rome against Carthage, increasing their territory with the Romans' help. Massilia and Rome had an early agreement, which later developed into an official alliance. Massilia was a loyal ally, providing information and ships to Rome in the Second Punic War (218–201 BC), and Rome in return allowed the city to maintain its control over the trade route to Spain. In 125, after aggressive action by local tribes, Massilia appealed to Rome for help, which led to the absorption of the area into the Roman sphere of influence and the formation of the first Gallic province of the Roman empire – Gallia Narbonensis. Little remains of the Greek settlement, the site of which is occupied by the modern city of Marseilles, but there is evidence of a theatre, port facilities, a Hellenistic aqueduct, fortification towers, and a Greek cemetery.

Massilia retained its independence until 49 BC, when it sided with Pompey against Julius Caesar. After Pompey's defeat, Caesar stripped the city of its fleet, and reduced its treasury and territory, but it retained a certain degree of autonomy due to its status as a *civitas foederata*. Its constitution remained in effect until the 1st century AD when it finally lost its independence to the expanding Roman empire. At that time Massilia's commercial and political power also declined, but it remained a centre of Greek culture and learning until the 6th century AD, ending only with the domination of the Franks.

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MATHEMATICS

Though mathematics is in some way the most typical, and is arguably the most enduring, of the achievements of the ancient Greeks, it was not originally their invention. The Greeks themselves believed that geometry had come to them from Egypt (e.g. Herodotus, 2. 109), and Aristotle *(Metaphysics*, 1. 1. 981b23) explained the origins of mathematics in Egypt by the fact that the Egyptian priests were a leisured class, who had time to spend on intellectual pursuits. It is also now known that the Babylonians had an impressive and ancient system of mathematics (though this is noticed hardly at all by ancient Greek

sources). The fact, however, that mathematics (if mathematics is taken to mean techniques for manipulating figures and numbers, and expressing relationships between them) was not original to the Greeks does not detract from their achievement of devising the concept of mathematical proof and developing the idea of the mathematical proof and developing the idea of the mathematical system which takes as its starting point the simplest axioms possible and proceeds from there by a process of rigorous proof to the demonstration of quite complex propositions. The result was to transform mathematics from a subject which was practically useful (and which also might be quite interesting, but only as a by-product) to a discipline which provided a new (and more demanding) paradigm of knowledge, and could be regarded as culturally and intellectually, rather than practically, important. Indeed, there is a rich tradition of anecdotes decrying those who hoped to get practical advantage from the study of mathematics, exemplified by the story told of Euclid by Proclus, that when one of his pupils asked him what was the use of learning mathematics, he told a slave to give the pupil a small coin "since he must profit by what he learns".

Unfortunately, since the works of Euclid are the earliest complete mathematical treatises which survive, and since extant accounts of the work of earlier mathematicians have probably been restated in Euclidean form, the process by which the distinctive features of Greek mathematics developed remains speculative. Though there is some evidence of early work on arithmetic (or more properly number theory), it is only in geometry that the distinctively Greek axiomatization and systematization of mathematics can be seen to its fullest extent. Though there is a persistent tradition that the Pythagoreans were prominent in the early stages of Greek mathematics (the importance given to mathematics in Pythagorean philosophical system certainly seems to have influenced the direction Greek mathematics took) and despite the prominence of individual Pythagorean mathematicians such as Archytas, in general those to whom the earliest discoveries were credited (Thales of Miletus for example) were not Pythagoreans. The earliest mathematicians did not give proofs as rigorous as those demanded later; at any rate, some of the propositions credited to them can be proved only by means of techniques developed much later. Greek mathematicians often made a distinction between the discoverer of a proposition and the person who produced the proof. Hippocrates of Chios (working in the 2nd half of the 5th century BC) was said to have been the first to produce an *Elements,* a systematic arrangement of geometrical theorems in logical order.

In the 5th and 4th centuries BC geometry developed to the point where it became the kind of mathematics recognizable today. The tradition as reported in the sources is that at this period geometry was concerned largely with problems about constructing certain figures, three of which became especially famous.

The first, the duplication of the cube, is sometimes referred to as the Delian problem, from the story that it originated when an oracle told the people of Delos that they could avert a plague by doubling the size of Apollo's altar, which was cubical; when the mathematics of this proved beyond them, they consulted Plato, who set it as a problem to his students (the story is certainly apocryphal, since Hippocrates of Chios, well before the date of Plato's activity, had reduced the problem to one of finding two mean proportionals in continued proportion between two lines, one twice the length of the other). A number of attempted solutions of this problem have been preserved, including a remarkable one by the Pythagorean Archytas of Tarentum (early 4th century BC), perhaps the first attempt at three-dimensional geometry, involving the intersection of a cylinder, a right cone, and a torus.

The second problem was the squaring of the circle, that is to say the construction of a square having the same area as a given circle. Since a circle (like other curves) can coincide with a straight line only at certain points, and not over any finite distance, the problem of relating areas bounded by straight lines with those bounded by curves inevitably made it necessary for mathematicians to confront the difficulties of handling infinite divisibility and infinitesimal magnitudes (through Hippocrates of Chios' work on the quadrature of lunes – areas cut off by the intersection of two arcs of circles – which contains the oldest geometrical proof to have survived, may have been an attempt, ultimately unsuccessful, to solve it without involving infinitesimals). An allusion to this problem in Aristophanes' *Birds* (line 1005) suggests that it attracted the interest of a wider public. Antiphon, the Athenian Sophist (5th century BC), is said to have tried to find a solution by inscribing within a circle polygons with more and more sides in the hope that they would eventually coincide with the circle; Aristotle treated this approach with open contempt. In the 4th century Bryson used both inscribed and circumscribed polygons which, if it was not simply a more complex application of Antiphon's fallacious approach, may have been an attempt to arrive at a ratio between the two polygons which would represent the area of the circle; if so, it was an important step towards the solution eventually found by Eudoxus. Later mathematicians approached the problem through the use of higher curves.

The third problem, the trisection of any angle (which probably arose from attempts to construct polygons), was approached by the Sophist Hippias of Elis (5th century BC) through the use of the *quadratrix*, one of the first higher curves, the locus of the intersection of the radius of a circle moving through 90 degrees and a straight line at right angles to the original position of the radius moving from the circumference to the centre of the circle uniformly in the same time; it was also used in a solution to the problem of the squaring of the circle.

Theodorus of Cyrene (late 5th century) did important work on irrational numbers (a problem which was raised initially following the discovery that the relationship between the side and diagonal of a square was the ratio of 1 to the square root of 2, which cannot be expressed by a ratio between any combination of whole numbers), which was developed by his pupil Theaetetus (d. 369 BC) into a general theory of irrationals. At about the same time Eudoxus of Cnidus (first half of the 4th century BC) not only put forward a theory of proportion which would deal with both commensurable and incommensurable magnitudes, but also devised a strategy of proof (usually misleadingly referred to as the "method of exhaustion") which evaded the problem of indivisible magnitudes, and so opened the way to serious work on figures and solids bounded by curves.

The Hellenistic period, building on the work of the 4th century, was the most creative period of Greek mathematics.

The geometry of the previous period was summarized and systematized in the first surviving Greek mathematical work, Euclid's *Elements*. Archimedes (d. 212/11 BC), perhaps the greatest of Greek mathematicians, did impressively innovative work on planes and solids bounded by curves, and extended mathematical methods to mechanics and hydrostatics, and Apollonius of Perge (late 3rd or early 2nd century BC) wrote a definitive work on the geometry of the parabola, the hyperbola, and the ellipse (referred to at this period as conic sections).

Though it was only in geometry that the distinctive Greek concept of formal proof was fully developed, other branches of mathematics were not neglected. Diophantus' *Arithmetica* dealt with problems in algebra, through worked examples and without proof, and Hero of Alexandria demonstrated that he could perform various complicated mathematical operations, including solving quadratic equations by a method quite close to the formula still used. Greek astronomers were familiar with some of the most important trigonometrical functions, and Ptolemy produced a table of chords which expresses the same relationships as a modern sine table.

Although there were no significant new developments in Greek mathematics, or in mathematics in general, until the development of algebra by the Arabs, the work of Italians in the later Middle Ages and the Renaissance (building on the achievement of Diophantus), and the invention of calculus in the 17th century, serious mathematical work continued. Pappus, in the 3rd or 4th century AD, composed a series of works, most of which still survive in a compilation called the *Synagoge* or *Collection*, which consists largely of commentary on and expansion of earlier work, with some new material (which may or may not be Pappus' own). It is not only an invaluable source for the history of Greek mathematics, but is also good evidence for the continuing vigour of the subject. From the 3rd to the 5th century AD the Neoplatonic school of philosophy (which stressed the metaphysical significance of mathematics, and the spiritual benefits to be gained from studying it) produced a number of commentaries on mathematical works which, though not original in themselves, preserve a great deal which might otherwise have been lost. In particular, Proclus (AD 412–85) wrote a commentary on the first book of Euclid's *Elements,* whose historical sections draw in part on a lost history of mathematics written by Eudemus in the 4th century BC; further information is contained in Proclus' commentaries on various dialogues of Plato. Later, in the 6th century AD, Eutocius produced a series of commentaries on the major works of Archimedes, revealing evidence of vigorous mathematical activity which would otherwise be lost. At about the same time, Anthemius of Tralles, one of the architects of Justinian's Hagia Sophia, was a mathematician of some importance. A surviving fragment of one of his works, *On Burning-Mirrors*, reveals that it was not simply a discussion of an optical device, but a serious contribution to the study of conic sections.

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MAUSOLUS

Ruler of Caria in the 4th century BC

In 392 BC Hecatomnus, father of Mausolus, was appointed one of several native satraps who ruled Asia Minor (Anatolia) for the Persian king in the early 4th century BC. Hecatomnus' initial assignments for the Great King were to crush Evagoras, rebel ruler of Cyprus, and to secure Caria against an expansionist Sparta, leader of the Greek states after the Peloponnesian War.

Mausolus became satrap c.377 BC amid a tangled confusion of Athenian, Spartan, Egyptian, Cyprian, Anatolian, and Persian politics, intrigues, rebellions, and wars. He played an important role in Graeco-Persian politics of his day. In the miscarried revolt of the western satraps (366–359 BC), though himself a rebel, he somehow retained his position and served Persia until his death in 353 BC. In 357–355 BC he supported the Greek rebels in the Social War that ended Athens' Second Confederacy. He at first ruled with his sister (who was also his wife) Artemisia; he ruled alone from 353 to 351 BC. The couple had no children. The ancient sources for the career of Mausolus are his contemporaries Isocrates and Demosthenes, as well as Diodorus Siculus, Dionysius of Halicarnassus, and Arrian.

The King's Peace of 387/86 BC, imposed on the Greeks by King Artaxerxes II (404–358 BC), had placed Anatolia officially under the rule of Persia, a status that endured until the conquests of Alexander the Great in 334 BC. But Athens, temporarily disarmed, still sought to thwart Spartan expansion. Hence the Second Athenian League of 377, formed ostensibly for that purpose.

Mausolus' transfer of his capital from inland Mylasa to Halicarnassus soon after his accession was probably a response to his Athenian confederacy. The new capital gave Caria a prominent maritime base, accessible to Greek commercial and cultural influences. Mausolus now built a navy and constructed on the offshore islet of Zephyrion what has been called the first Hellenistic palace.

The revolt of the western satraps had no single cause. Even after Cyrus was defeated in 401 BC, Egypt still defied the Persian power successfully. In 372 BC Datames, satrap of Cappadocia, asserted his independence. Persia's failure immediately to crush him or the Egyptians raised the hopes of other satraps; some hoped to achieve success by forming alliances with Athens or with Sparta.

In 366 BC Mausolus and Autophradates, satrap of Sardis, were sent against Ariobarzanes, another rebellious satrap. Instead, they joined Agesilaus of Sparta (campaigning to undermine the King's Peace) in supporting Ariobarzanes, and

Mausolus paid Agesilaus to supply him with mercenaries of his own. It was money that Mausolus had, in fact, collected as tribute on behalf of the king.

More disaffections from Persian rule occurred, peaking in 362 BC. Phrygia, Armenia, Lycia, Ionia, Lydia, Phoenicia, and Syria joined the revolt. Inexorably, by 359 BC, the Persians had reduced this alliance, but Mausolus was among the satraps who retained their status in defeat.

Athens' aggressiveness in an effort to regain old cleruchies created distrust among the members of its alliance and led to the Social War. Mausolus was aware of the resistant mood of Athens' island confederates in the face of what seemed to be Athens' quest for another empire. Indeed, according to Demosthenes in 351 BC, it was Mausolus who had incited Chios, Cos, and Rhodes to rebel and Athens' other allies to full revolt. Though Mausolus' intrigues and participation played a part, Athens had brought it on itself. In 355 BC Isocrates had delivered his speech *On the Peace,* urging the Athenians to dissolve their maritime league, and Athens conceded the independence of Cos, Chios, Rhodes, and Byzantium. Mausolus moved in with Carian garrisons and replaced their democratic governments with oligarchies.

To touch Athens was to be Hellenized. As Athens had long ago attached all of Attica to itself by *synoikismos* (political amalgamation of settlements), so Mausolus synoecized Halicarnassus, gathering the native communities into a single coastal city. This was his most significant legacy, as his tomb was his most lasting. During his own lifetime Mausolus supervised a design for his Mausoleum, possibly as a monument to the entire Hecatomnid dynasty. (Oddly, the word for it was originally *mnema or taphos* – "monument"a or "tomb".) It was completed by his wife Artemisia, who was also buried there. The Mausoleum was a triumph of Hellenic architecture and sculpture, or more correctly of the Hellenic spitit. Its decoration was the achievement of the four greatest Greek sculptors of the time: Scopas, Leochares, Bryaxis, and Timotheus. It was designed by the architect Pytheus, who had already designed the Ionic temple of Athena at Priene; he was a revolutionary artist with a new vision of sculptural and architectural harmony.

Even with detailed descriptions of the tomb by Pliny the Elder and Vitruvius, much confusion exists. The Mausoleum, about 50 m tall and with a circumference of 150 m, occupied only a small section on an artificial terrace of 105 by 242 m, surrounded by a wall of white marble. On this podium (really the tomb chamber), whose 160,000 building blocks each weighed about 70 tons, were constructed three columned tiers surmounted by a pyramid of 24 steps, on top of which was Pytheus' colossal four-horse chariot of marble. Great stone lions "protected" the pyramid at its base. Each tier had a sculptural frieze and a group of intercolumnar statues in the round, all manifesting a different theme. The friezes depicted Amazons in battle, centaurs, and chariot races. The themes are common, but the chariot frieze might have depicted the actual games held by Artemisia at Mausolus' funeral. On the lowest tier the statues were life size; above, they were one-and-a-third times life size; and at the top they were one-and-two-thirds life size. The splendid portrait statues of Mausolus and Artemisia still survive. These statues, of the largest size, stood within the great sepulchre and not, as generally believed, in the apex chariot. They are now in the British Museum among the numerous sculptures found by excavators in 1857.

With its new conception of size and space and its colonnades with heroes walking among them, the Mausoleum had great influence over the grandest buildings of the Hellenistic age. Alexander the Great had buried his father in the customary modest Macedonian manner, but after seeing Helicarnassus and the gleaming white tomb of Mausolus in its centre, he built an immense tomb for his friend Hephaestion.

The Mausoleum was still standing in the 12th century. In 1495 the Hospitaller Knights of St John used its stones for their castle (still to be seen in the harbour of modern Bodrum). Today only Mausolus' theatre may be seen; nothing is left of the tomb or palace.

Mausolus' influence is remarkable. He promoted Greek culture – institutions, arts, and language – in southwestern Anatolia. The synoecism of Halicarnassus and the mingling of native Carians and Greek culture were precursors of the Persian–Greek integration credited to Alexander. With his Mausoleum, agora, temples, and theatre, Mausolus bridged the Classical and Hellenistic worlds, as the "last of the satraps and the first of the diadochs".

DANIEL C. SCAVONE

Biography

The son of Hecatomnus, Mausolus was ruler of Caria from 377 to 353 BC together with his sister (also his wife) Artemisia. With the title satrap, he ruled under Persian auspices. But by moving his capital from Mylasa to Halicarnassus he opened it to Greek cultural influences. Having incited Athens' allies to rebel, he annexed Cos, Chios, Rhodes, and Byzantium. He and Artemisia were buried in the monumental Mausoleum, one of the seven wonders of the ancient world.

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MEDICINE

The earliest sources of detailed Greek medical knowledge are Homer's *Iliad* and *Odyssey*, both written in the 8th century BC. In the *Iliad* Homer mentions 147 different wounds, for most of which he gives detailed and accurate descriptions. Homer also recorded the medical care given to injured warriors, which focused on providing comfort to the wounded soldier rather than treating the wound itself. Among the warriors some were considered specialists in the art of healing through bandaging and herbal medicine. Two of these specialists were Machaon and Podalirius, who are both described as sons of Asclepius. After Machaon was wounded himself, he was treated by being given a cup of hot wine sprinkled with grated goat

cheese and barley. Homer did not discuss any diseases, except for the case of Thersites which contains a typical description of rickets.

An influential development in Greek medicine was the Asclepius cult, which originated in Epidaurus and spread rapidly throughout the 4th century BC. Asclepius, who in the *Iliad* is described only as a skilful physician, was here worshipped as a god of medicine, truth, and prophecy. He was a son of Apollo who had learned the art of healing from the centaur Chiron. The god figure may have been derived from a human Asclepius who is credited with many miracles in healing and lived around 1200 BC.

By the end of the 4th century BC Asclepius was worshipped in about 200 temples, of which those at Epidaurus, Cnidus, Cos, and Pergamum were the most important. The sick would visit the temples for a ritual healing incubation. After purifying themselves through baths, fastings, and sacrifices they slept in a dormitory, or *abaton*, where they were visited in a dream by Asclepius or one of his priests. In the morning the priests would interpret the dream and give advice. Since the priests wanted to ensure that the sick had a chance of recovery, they became skilful in diagnosis. The extent and variety of the temple cures can be seen from the tokens the cured left behind. At the Asclepieion at Epidaurus about 10 cubic m of terracotta replicas of afflicted limbs and organs have been found, illustrating successful case studies. Inscriptions on the temples show that the treatment of diseases consisted of rest, exercise, diet, and magic.

It was not the priests, however, but the Presocratic philosophers, starting with Thales of Miletus (6th century BC), who led the way towards a naturalistic medicine. In the cosmologies of the Presocratics the inner workings of the human body became subject to the very same principles as the outward phenomena. Of special significance is Empedocles of Acragas (*c.*490–*c.*435 BC), founder of the medical school in Sicily, whose four-element cosmology (fire, earth, water, air) anticipated the doctrine of the four bodily fluids or humours: blood, phlegm, choler (or yellow bile), and melancholy (or black bile). Just as the order of the universe depended on a harmony of the four elements, so was one healthy when the four humours were in balance.

The views of Empedocles influenced Hippocrates of Cos (*c.*460–377 BC), who is generally considered the father of medicine. A contemporary of Plato, Hippocrates lived in the golden age of Greek thought and culture. As with many early Greek figures little is known of his life, and the name may refer to several different people. About 70 medical treatises, generally called the Hippocratic corpus, are traditionally attributed to him, but it is not clear whether he wrote even one of them. The treatises vary greatly in length and style, and it is generally believed that they used to make up the library of a medical school, probably at Cos, which became the most important centre of medical thought and practice in the 4th century BC – a role that was later taken over by Alexandria. Today Hippocrates is best known for the Hippocratic oath, an ethical code that is still upheld, albeit in radically revised versions. According to the original oath, the physician should use medicine solely for the benefit of the patient, abstain from surgery, keep information about the patient confidential, and refrain from asking a fee for teaching others his trade.

The Hippocratic theory built upon the idea of the Presocratic philosophers that man and nature are subject to the same rules and on Empedocles' theory of the four elements. Reliance on the speculative cosmologies of the Presocratic philosophers was crucial to the Hippocratic theory, since physicians could not engage in dissection to familiarize themselves with the inner workings of the human body. Following Empedocles' theory of the four elements, Hippocratic medical practice consisted of restoring the balance of the four humours. To cure a patient one had to make the offending humour escape or balance itself out. The Hippocratic physicians sought to do this primarily through diets, purgation, bloodletting, and draining abscesses.

One interesting element of the Hippocratic corpus, and a clear mark of its scientific character, is that besides successful treatments medical mistakes were also included. This is especially clear in book 5 of the *Epidemics*, which contains case studies of ill-timed purgatives, badly done cauterizations, irritating wound dressings, and others. Some of the Hippocratic methods, such as treating a dislocation of the hip, remained unsurpassed until the 19th century. Part of the corpus, most prominently the *Aphorismi*, was used as a textbook up to the 19th century.

The other two major centres of Greek medicine during this period were Cnidus and Sicily. Two important figures of the school at Cnidus were Euryhon and Ctesias, both contemporaries of Hippocrates. Euryhon made anatomical studies, explained pleurisy as a lung affection, and discovered that haemorrhage can occur from the arteries as well as the veins. He also believed that disease was caused by insufficient evacuation of the faeces. In Sicily Philistion of Locri, who met Plato at Syracuse, did much to diffuse the medical knowledge of the island and to ensure its synthesis with the views at Cnidus and Cos.

Although Aristotle was not a physician himself, his impact on the development of Greek medicine can hardly be overestimated. Born in 384 BC, he was a son of Nicomachus, who was the court physician to Amyntas II, king of Macedon. Aristotle's main contributions concern his development of the scientific method, to which his formal logic added an element of precision, and his work in comparative anatomy and embryology.

After Aristotle the centre of Greek culture shifted to Alexandria, where a famous medical school was established around 330 BC. Important figures of this period were Herophilus and Erasistratus. Both lived during the single brief period in which the ban on human dissection was lifted. This change in attitude towards dissection was due largely to the teachings of Plato and Aristotle on the soul. According to Galen, Herophilus of Chalcedon (*c.*335–c.280 BC) was the first to perform public dissections on human cadavers. He distinguished nerves, tendons, and blood vessels, and gave precise accounts of the retina, liver, pancreas and the genital organs of both sexes. Herophilus followed the Hippocratic method of balancing the four humours through drugs, diet, and exercise, and is believed to have been the first to measure the pulse, and use it to diagnose a fever.

Herophilus' rival at Alexandria, Erasistratus of Chios (*c.*304–*c.*250 BC), is known especially for his studies of the circulatory systems, including the nervous system, since he

thought the nerves were hollow tubes filled with fluid. Erasistratus proposed mechanical explanations for many bodily processes, including digestion, and is often considered the founder of physiology. In the 1st century AD Celsus accused both Herophilus and Erasistratus of performing human vivisection, an accusation that was empathically repeated by Tertullian and St Augustine, but for which there is no evidence.

During the first centuries of the Christian era, many Greek physicians moved to Rome. Among them was Pedanius Dioscurides (*fl.* AD 20), a Greek pharmacist and author of *De Materia Medica*, which contained descriptions of about 600 plants with an explanation of their medical uses, and included many scientific illustrations to help identify them. Dioscurides greatly simplified the pharmacopoeia, and his work is the basis of modern pharmacology.

The first eminent Greek physician in Rome was Asclepiades of Bithynia (*fl.*150 BC), who opposed the humoral theory of medicine. Asclepiades drew upon the atomism of Democritus of Abdera (*fl.*420 BC), attributing disease to the contracted or relaxed condition of tiny solid particles he believed made up the body. This explanation became the basis of a school of medicine that extended until well into the 7th century. It largely disregarded the findings of anatomy and physiology and concentrated on therapeutic massages, fresh air, and corrective diet. Soranus of Ephesus (2nd century AD), who followed Asclepiades' atomist approach, also came to Rome. Soranus wrote on childbirth, including the podalic (feet-first) delivery, infant care, women's diseases, and nervous disorders. An opponent of abortion, he devised several methods of contraception.

The most illustrious Greek physician in Rome was no doubt Galen of Pergamum (*c.*AD 130–201). Galen began his career at the Asclepius temple in Pergamum and came to Rome around AD 163. He was a brilliant and prolific writer with great rhetorical skills. About 300 titles are attributed to him, of which about half survive. They cover close on every aspect of the medical theory and practice in his day. For his own views he combined ideas from Plato and Aristotle with the Hippocratic tradition. Like the Hippocratic physicians, Galen believed that health required an equilibrium of the four humours, but unlike the holistic Hippocratics he argued that imbalances can also be confined to particular organs.

For Galen anatomy formed the basis of medical knowledge and he frequently dissected and experimented on animals. Notable are his vivisection experiments, such as tying off the ureters to show the functions of kidney and bladder. Because of a ban on human dissections, his anatomy was based largely on the dissection of mammals, which often led to errors. His description of the uterus, for instance, is largely that of a dog. Galen saw the body as three connected systems: the brain and nerves are responsible for sensation and thought; the heart and arteries are responsible for life-giving energy; and the liver and veins are responsible for nutrition and growth.

Although observation does play a role in Galen's system, his general tenet was to explain everything in pure theory, to which his rhetorical skills gave the air of being infallible. This led to a strong tendency to dogmatism among his followers. Galen's approach is in this respect almost the opposite of the Hippocratic method, which tried to remain close to the facts and proceeded through a careful description of case studies.

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See also **Anatomy; Disease; Healing Cults; Health**

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MEGALOPOLIS

City in Arcadia

Megalopolis – the ironically named "Great City" – was founded at the instigation of Epaminondas and the Boeotian federation after their shattering victory over the Spartans at the Battle of Leuctra in 371 BC and their subsequent incursion into the Peloponnese during the winter of 370/69, at the invitation of the Arcadian League.

During this incursion Epaminondas had stopped short of attacking the city of Sparta itself, even though it was unwalled, but he successfully removed one of the main supports of Spartan power, their possession of Messenia, reconstituting it as an independent state with a vastly fortified city at Messene. In the next year, 368, he followed this up with a second invasion of the Peloponnese. He used his successes this time to strengthen the Arcadian League. It was at some point during this that he organized the creation of Megalopolis (Pausanias says a few months after Leuctra, when Phrasicleides was archon at Athens, that is in 371/70 BC, but this is too early).

The new city served several purposes. It was situated in southern Arcadia, in an area of upland plain drained by the headwaters of the river Alpheus (which then flows westwards, past Olympia). This area also has access to the Eurotas valley to the southeast, and to Messenia and Mount Ithome to the southwest. It was thus strategically vital if the Spartans were to be restricted to their homeland of Laconia, and an anti-Spartan stronghold here was a crucial part of Epaminondas' new order for the Peloponnese. It was designed also to strengthen the unity of the Arcadian League, to create a formidable single power in the central Peloponnese which would in turn prevent any Spartan resurgence. Arcadia had come rather late to the formation of city-states, and this had made possible the formation of the federal league. Of the existing cities, Mantinea had been formed out of constituent villages, and broken up into villages by the Spartans in 385 BC. Tegea had existed as a recognizable city for centuries, but there was rivalry with the neighbouring

Mantineans, who were unlikely to recognize it as the leading state in the Arcadian League. Megalopolis therefore served as a new, artificial, neutral city which all the other Arcadians could recognize as their capital without loss of face. According to Pausanias (2nd century AD), it became the youngest city, not just in Arcadia, but in all Greece, excluding colonies founded by the Romans. He names the founders, probably on the basis of a record kept at Megalopolis itself, as Lycomedes and Hopleas from Mantinea, Timon and Proxenos from Tegea, Creolaos and Acriphios from Cleitor, Eucampidas and Hieronymus from Maenalos, and Possicrates and Theoxenos of Parrasia, that is, two from each of the main cities of Arcadia, thus emphasizing its position as a centre for all Arcadians. The actual population came from the existing villages in the vicinity. Pausanias gives a list of their names; he adds that some had to be coerced.

The remains of ancient Megalopolis are not well preserved, and virtually nothing of its surrounding city walls can be seen, though their line has been traced. They enclosed a large area, as at Messene, but from the start the city seems to have been designed for a substantial population, moved in from the villages, unlike Messene whose walls were intended to provide a place of refuge in emergency for Messenians living outside the city. The architectural importance of Megalopolis rests with the buildings constructed to enable it to function as the capital of the Arcadian League: a roofed hall for the council of the league, called the Thersilion after its founder, and the adjacent theatre which, quite apart from any use for the performance of drama, would also have been the seat of the 10,000-strong representative assembly of the league. The porticoed entrance to the Thersilion served as the stage building *(scaenae frons)* of the theatre. Both were excavated by the newly founded British School at Athens as its first major excavation in 1891. The theatre, one of the largest in Greece, was fairly well preserved (though earth tremors have caused subsequent damage). The Thersilion, however, had been reduced to its foundations, perhaps indicating a structure of mud brick; it was already in this state when Pausanias saw it. It was a rectangular building, 66 m wide, 52 m from front (the portico) to back; as with all ancient Greek enclosed buildings of this size its roof had to be supported on a forest of columns, but these were arranged as a series of lines radiating from an area between the centre and the main entrance of the building which was obviously the place from which speakers addressed the council, thus giving direct lines of vision to the speaker from the assembled councillors. Another important building originally excavated by the British School in 1891 (it is now being re-examined by a German archaeological team) was the principal portico building of the agora, the stoa of Philip, a huge Doric building, measuring 155 m in length, with projecting wings at either end. The facade has no fewer than 86 Doric columns; the interior was divided into three aisles by double rows of Ionic columns, with two extra columns in each wing. Such a colossal building could only be the gift of a king; in this case Philip of Macedon, seeking to confirm the support of the Arcadians, and almost certainly Philip II, in the aftermath of Chaeronea and the refusal of the Spartans to join the Peace, rather than Philip V, reviving Megalopolis after it had been sacked by the Spartans under Cleomenes III in 223 BC.

In the Hellenistic period Megalopolis was a firm supporter of Macedon, notably in the 240s when it was ruled by a tyrant, Lydiades, probably installed with Macedonian assistance. Nevertheless, finding himself increasingly isolated he had joined the Achaean League; it was this that provoked Cleomenes' attack, the effect of which was reversed by the unexpected alliance of the Achaean League with Macedon and the defeat of Cleomenes at the battle of Sellasia in 222 BC. Thereafter Megalopolis continued as a member of the Achaean League, and so became embroiled against Rome in the Third Macedonian War, resulting in the son of its leading politician Lycortas being taken to Rome as a hostage. This was the historian Polybius, whose writings make him not only the greatest historian of the Hellenistic period, and of the involvement of Greece and Rome, but also by far the most eminent citizen of Megalopolis.

After the Roman incorporation of Greece as its province of Achaea, Megalopolis continued without any political importance (and hence the ruin of the Thersilion) as a small provincial city. It faded away in later antiquity, the population dispersing once more into villages.

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MEGARA

City in central Greece

Situated between Eleusis (19 km distant) and the isthmus of Corinth (33 km away), close to the north shore of the Saronic Gulf, the ancient city of Megara was topographically focused on the twin acropolises of Alcathous and Caria: the same is true of the modern town.

The ancient harbour, now silted up, was about 1.5 km away at Nisaea, opposite Salamis and to the west of modern Pachi, which is of no importance. On the west side of the site of the Nisaea harbour area is the hill of Palaikastro (later the site of a Frankish fort), which was probably ancient Minoa. Minoa is mentioned in ancient sources as either an island or a cape. To the east, the hill of Hagios Georgios has ancient fortifications and was probably the acropolis of Nisaea.

Although the small plain in which Megara itself lies is fertile and produces vines and olives, the hinterland is mostly mountainous and barren, dominated by the Yerani and Pateras ranges to the west and east respectively.

At its greatest extent the territory of Megara covered the whole of the peninsula between Eleusis and the isthmus, and included Aegosthena and Pagae to the north and east, and Perachora to the west. Pagae, near modern Alepochori, is close to the shore of the easternmost arm of the Corinthian Gulf (the so-called Halcyonic Gulf). Megara's ports thus gave access to two seas. Through its territory passed important land routes

between Attica and the isthmus and between central Greece and the isthmus. The position of Megara on these strategic routes, although advantageous to trade and communications, was also the cause of misfortunes since armies ravaged the city in passing or brought it into conflicts through use as a base.

The settlements of Rous (to the north) and Tripodiskos (to the northwest, on Mount Yerani), and the sanctuary of Zeus Aphesios (above Kakia Skala) were also Megarian.

Only limited traces of Neolithic settlement have so far been found (at Lake Vouliagmeni, near Perachora). Finds of pot-sherds show that the acropolis area of Megara town (where there is also "Cyclopean" walling which may be prehistoric), as well as the probable sites of ancient Nisaea and Minoa, were inhabited in the Bronze Age. Myths suggest that in very early times Megara may have been subject to Athens.

But as a Dorian state it became important only from the 8th century BC. Its situation was favourable for trade and it was active in the colonial movement. Its foundations included Megara Hyblaea and Selinus in Sicily, and Chalcedon and Byzantium on the Bosporus.

Megara was ruled by tyrants for much of the Archaic period. The best known of them is Theagenes (mid-7th century), whose son-in-law Cylon attempted a coup at Athens.

Its territory was diminished in the 6th century when the Athenians, under Solon, took Salamis, and the Corinthians the western part of the peninsula. Megara took part in the Persian Wars.

In 461 the Athenians built the long walls connecting the city with Nisaea and garrisoned both this harbour and that at Pagae. In 456 the Athenians withdrew when the Megarians rejoined the Peloponnesian side. This caused enormous resentment at Athens and resulted in the "Megarian decree" of 432 by which the city was banned from Athenian markets. The Athenians continued to harass the city, building the fort at Boudoron on Salamis to check Nisaea.

After the start of the Peloponnesian War, in which Megara suffered badly, partly because of its changing allegiance, its territory was invaded twice annually. For a time in 424 the Athenians took control of Nisaea and Minoa, but did not succeed in capturing Megara itself.

Recovering in the 4th century, the inhabitants rebuilt the long walls, again with Athenian help, as a defence against Philip of Macedon. In 315 the city was used by Cassander as a base against the Peloponnese. In 307 it was besieged by Demetrius Poliorcetes who took away all the slaves, thus devastating the economic infrastructure. In the 3rd-century "Chremonid" War (between Athens-Sparta and Macedon) Megara was controlled by the Macedonians, and later (243 BC) the city joined the Achaean League. Pagae and Aegosthena then became independent.

With its territory and power circumscribed, Megara was less important in the Hellenistic and Roman periods. The city suffered at the hands of Roman armies but remained rich in the buildings and works of art described by Pausanias.

Study of the town's antiquities began in the 19th century with the work of H. Reinganum and has continued since. Megara's most impressive surviving ancient monument is the so-called Fountain of Theagenes, ascribed to the tyrant. In fact this is a large reservoir, its roof supported by pillars, originally fed by an acqueduct.

Pausanias saw numerous public buildings and works of art. The sites of several of these have been identified by excavations or the discovery of inscriptions. Most of the public buildings either are no longer to be seen (a stoa of the agora, beneath the modern Plateia Metaxa) or have been incorporated in later buildings (inscriptions and a temple of Athena in churches, especially that of the Ypapandi, and houses on Alcathous). Numerous fragments of the fortifications (4th century BC) have been found, allowing the line of the circuit – and some of its gates – to be clearly defined. Megara was known for the quality of its houses, with capacious basements, many examples of which have been excavated.

Famous Megarians included the elegiac poet Theognis (7th or 6th century BC) and Eucleides, founder of the 4th century BC post-Socratic Megarian school of philosophy.

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MELOS

Island in the Cyclades

The geographical location of Melos, the most southwesterly of the Cyclades, gave it a position of considerable importance from earliest times, since it was the first of the Aegean islands that mariners would encounter after rounding the southern Peloponnese at Cape Malea on their way to the many ports of the Aegean. The island has anarea of 147 sq km and like a number of other Aegean islands, has volcanic origins, and it is consequently rich in a variety of minerals; the export of these, which include alum, sulphur, keolin, and many others, provided a continuing source of wealth for its inhabitants. The use of millstones produced in Melos was also widespread throughout the Hellenic world. The crater of the volcano that formed the island provides one of the deepest and best protected harbours

in the Aegean. The terrain of Melos is abundant in crops, although its hilly interior has been much mined for its mineral wealth; the highest of its mountains, Prophetis Elias towards the southwest of the island, rises to 751 m.

During the 2nd millennium BC the island formed part of the Cretan and Mycenaean kingdoms, and was later settled by Dorians from Laconia. The Melians provided two penteconters for the Athenians at Salamis (Herodotus, 8. 48), but during the Peloponnesian War they antagonized the Athenians, who mounted a successful siege of the main city, later killing or enslaving the entire population. Thucydides (8. 85–110) provided a record of the dialogue that preceded, and was the ultimate cause of, this event.

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See also **Obsidian**

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MEN

Hellenic woman is as ubiquitous as Hellenic man, yet across the centuries it is man who has held centre stage in the public domain, and he has consequently more often than his counterpart given rise to civilizations and genealogies, eternal ideas, innovative art, has waged wars, and has been the celebrated object and subject of intimate love and fraternity. While woman is the pillar of domestic life, muse, backstage conspirator, it is man who wears the laurels, wields the sword, runs the races, and heralds the dawn of every great triumph. If Zeus and patrilinealism are to the Greek imagination what Isis and matrilinealism are to the Egyptian, it is the gods who have made it so. Yet human agency has perpetuated the myth.

The patrimony of three thousand years of Hellenic culture is threaded together by a clear distinction between private and public life. With notable exceptions, women determine the former, and men are left with the latter. Family farms and homesteads during the Ottoman empire encouraged these distinctions, as does modern agricultural life, where men are associated with labour and tilling the fields and women with kneading the bread and keeping house, with equal feats of endurance. In some communities, women till as much as they knead. But when women do take centre stage, their dignity is unsurpassable and memorable, for such public presence is culturally unseemly, yet the odds against these occurrences, once great, lessen with each passing decade. In recent years women have gained ever greater entrée into politics, the arts, and higher-degree professions. By and large, men and women are proceeding into the new millennium arm-in-arm. But it is the men in the drama of the Greek experience, ever at the proscenium, we now recollect.

The task of making generalizations about men in the Hellenic world is a formidable one. To circumscribe them in a homogeneous mould would do more damage that it would offer insights, and stereotypes are inevitable. Like any other citizen of the world, the Hellene is complex, enigmatic, and multifarious, yet artistic representation, history, and social constructions do offer some clues. Though the main ports and remote outposts of manhood may be miles apart, we shall try to survey the topography none the less. If there are overarching themes of manhood, manliness, or masculinity within Hellenism, for the most part they are culturally determined.

Yet, reinvent themselves they do, as the romantic hero, the premodern entrepreneur, modern stay-at-home husband, or postmodern poet, one commonality rings true across class, station, and political ideology – most Greek men value their masculinity, which embodies a sextet of attributes: endurance, duty, freedom, love of beauty, passion for knowledge, and love of life. Some value schooling more than others, yet even those with an elementary education will quote Marx, will tell you whence the wind blows in December, will discourse knowledgeably on world politics. Classicism, with or without its nuances, indubitably makes itself known somewhere in the Greek man's mind and sticks. And because of this renowned heritage, real or imagined, a certain amount of braggadocio enters the picture, and for this an audience must be found. Conversation, thus, is the sine qua non of his existence. Without community, comrades, or friends, life's purpose would evade him. An Epicurean fragment: "Remove sight, association, and contact, and the passion of love is at an end."

Men of the Hellenic world communicate not only through speech, but with the eyes and hands. The eyes, possessing inner or outer vision, are the proverbial windows to the soul, and they matter. With radial lines at the outer fringes, knowing much laughter, weathered with experience, they speak volumes. The hands – dirtied by work, the pristine hands of the politician, hands stained by cigarettes, veined, long-nailed, delicate, or strong – greet in kindred manner: firmly. In countenance and comportment variety is the norm. All types factor into the mix – bearded like Dionysus, fresh as Adonis, spectacled, stout, towering, cologned, flat-nosed, cultured, blond, blue-eyed, coffee-skinned, dark, fair, the curly-headed ones, rogue, family man, marauder, pious one, tempestuous, tender. Yet, what matters is truth, not oblivion, and this is conveyed through a steady gaze, universally.

With the birth of Archaic Greek sculptural arts, one witnesses the most lasting memorial to the Hellenic male figure, inherited from the civilization across the sea in Egypt, in the form of the free-standing *kouros*. Strong-limbed and planar in construction, the *kouros* gazes straight ahead and smirks, while one foot steps forward into what will be a continuous unshakeable history, a testimony to his fortitude. Lacking the ease of hip and *contrapposto* fluidity of his later metamorphosis, the static *kouros*-as-museum-piece is very much alive in spirit in contemporary Greece and its diasporas. What it represents is more than an idea. It is an ideal, a perpetual reminder of proportional harmony and stability, against which man measures all things.

What of the world of the homoerotic, the stereotypical love figure adorning those vases one sees in museums in western capitals? Not just a question of sexuality, but a question of beauty. The Alexandrian poet Constantine Cavafy captured the cultural convergences as well as the lure of the sensual in "Of the Jews (AD 50)":

Painter and poet, runner, discus-thrower,
beautiful as Endymion: Ianthis, son of Antony.
From a family on close terms with the Synagogue.

"My most valuable days are those
when I give up the pursuit of sensuous beauty,
when I desert the elegant and severe cult of Hellenism,
with its over-riding devotion
to perfectly shaped, corruptible white limbs,
and become the man I would want to remain forever: son of the Jews, the holy Jews."

A most fervent declaration on his part: "... to remain
forever
a son of the Jews, the holy Jews."

But he didn't remain anything of the kind.
The Hedonism and Art of Alexandria
kept him as their dedicated son.

Where social relations in ancient Greece delineated sharply between men's work and leisure in the social realm and women's work or play in the private (despite the heady and sporadic appearances of an Aspasia or a Sappho), fraternal and erotic love objects were legendarily men. As much as wives bore the children and stood by their men, the rules governing apprenticeships in philosophy or the arts or the nascent sciences occasionally transcended into elite homoerotic patronages. The elder courting the younger, the younger of perfect body and shapable mind, the elder of knowledge and experience. Plato's idealized Republic made some things clear: the guardians of the city were to be honed and shaped internally and externally. Mathematics, astronomy, musical training, sporting activity, made for the consummate citizen. An advocate of some kind of communism, inclusive of women, sharing the labour and expenditures of a variety of energies in the service of the city, with a wink and a nod in retrospect, one understands none the less the privileged place of men in that structured, hierarchical city.

The Epicureans, however, advanced Plato's invention, acknowledging for the fraternal brotherhood nature's – not god's – roll of the dice. Perambulating through the ether of the planned cosmos are the primordia, first beginnings, random chaotic particles, sensed but not apprehended. How beautiful an idea, random collisions of primordia, just like men, suddenly finding themselves together in commune, eating, drinking, and discussing. In this randomized cosmos, without divine intervention or teleology, how should man live his life? Epicurus' answer: seek pleasure and avoid pain, with temperance. A higher regression from the model city, these Epicurean communards disposed of Aristotle's legendary dictum and lived their lives not solely as political animals but as friends, eschewing public obligations though recognizing the mutual exercise of justice.

The honour-bound heroes of the Trojan War, of conflicts with Sparta, of Alexander's armies, of wars for independence, or wars against fascists, one part reluctant, one part fate-tempting, are long-lasting images of the Hellenic and Hellenic worlds and the Greek nation state. "Dearest, your own great strength will be your death", admonished Homer's Andromache, the loving, white-armed wife of Hector, tragic hero of the Trojan camp, breaker of horses. "Hector, you are father to me, and my honoured mother, you are my brother, and you it is who are my young husband", continued the pre-death eulogy of Andromache, whose name means, "she who fights like a man". To which the adoring husband replied, in Pope's verse:

"Andromache! my soul's far better part,
Why with untimely sorrows heaves thy heart?
No hostile hand can antedate my doom,
Till fate condemns me to the silent tomb."

No man is immortal, not even the hero Achilles, who was dipped into the river Styx for protection against fate, though it was his heel, where he was held, that was to be his downfall. With heroism comes human frailty, not decadent protection. For Homer, man was man, as was the great Alexander of Macedon. Plutarch's character study of him recalls his precocious and determined childhood, his competence, like Hector, to tame a wild horse with gentleness, "a confident voice, and a touch of the heel". Philip, noting his prodigal son's aptitudes, advised, "my son, look for a kingdom equal to yourself, for Macedonia has not space for you." The discontented pioneer, his soldiers haggard, traversed the continents establishing his own outposts of Hellenism, hybridizing his own tribes with those of the east, erstwhile barbarians. Both benevolent and vindictive, Alexander met his death not far from his bath, exhausted. Of these magnificent exploits "the end is always small", wrote the poet Yiorgos Chouliaras.

Homer's high heroic verse resounds archetypically, but from the lyric poets of the 7th and 6th centuries BC to the modern idiomatic poets, poetic subjects remind one of the timelessness of which we are a part. Bawdy like the rest of us, they are cynical reverent, awesome. This gem from the Byzantine period, a caveat against a careless appearance: "Tall and wavy are the crops/on your hairy face./Scissors?/Never./Throw them away and bring out a plough." Michael Herzfeld's assessment of 20th-century Glendiots is fitting, where he writes "there is less focus of 'being a good man' than on 'being good at being a man' – a stance that stresses *performative excellence*." Socially, men do this best in the *kafeneia,* or coffee shops, of the modern day, gesticulating and talking their way to bravadoes.

Ever reveried, again enduring, still politicking, leaving home to find it elsewhere among their own kind, driving taxis, serving tasty morsels, crafting memorials of words and steel, airborne and stubborn, naughtily and forgivingly they persevere and clamour at the gates of hell and paradise. "Try to enjoy the great festival of life with other men", said the Greek Epictetus, enslaved to a Roman master.

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See also **Homosexuality; Women**

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MENANDER 342–292 BC

Comic playwright

Not only was Menander, in the opinion of his Hellenistic followers as well as of modern critics, the greatest playwright of New Comedy, but he is also among the most influential authors in the history of literature. In him the modern attitudes to quotidian existence, human character, life's vicissitudes, and society's conventions were first crystallized. Unconcerned in his works with Sophocles' tragic confrontations with time and the cosmos (though his subtle diction refers often to tragedy), he shows us as we are, with tolerance, affection, and a wisely critical eye. Subsequent writers of drama, when not tragic, usually took his approach for a model, from Shakespeare to Molière to Oscar Wilde.

Menander (or Menandros) was born in Athens of a good family at the end of the Classical period. Among his teachers was Theophrastus, whose *Characters* was surely an influence; Theophrastus' teacher was another realist, Aristotle, and Aristotle, of course, was Plato's student. In 338 BC Philip of Macedon made the Greeks his subjects, and Athens, after a last burst of heroic resistance under Demosthenes, began its slide from Hellas's most energetic city to a provincial town living on its reputation.

Menander's first play, *Orge* (Rage), was produced in 321 BC, and he died, supposedly drowned in the harbour of Piraeus, in 292 BC, a generation after the immense changes in Athenian society wrought by the conquests of Philip's son, Alexander the Great. His work anticipates and then reflects that later world, when men had lost belief in heroism and trust in public religion, and found fulfilment more as private individuals than as active members of the polis. That explains why Menander's plays do not resemble those of the 5th-century BC master of Old Comedy, Aristophanes, but rather the strange late romances of Euripides (who in old age forsook Athens for Macedonia); in plays such as *Alcestis* and *Ion* that disillusioned master abandoned ideals of high morality and noble citizenship and the tragic conception with them. In the satirical fantasies of Aristophanes the main character is the chorus, which represents the polis, i.e. us, the *demos,* while in Menander the chorus, left to the care of producers, merely provides entr'acte entertainment. Because Menander's plays do not comment directly on political life, they were international. The inheritor of the whole classical age, Menander helped to define the lesser but still brilliant Hellenistic age for his viewers and for us. Our notion of comedy is his.

Meaning, Menander thought, now that freedom and glory are gone, must needs be sought in the paradoxes of private life, at home and on the street. His characters are types – the curmudgeonly father, the wronged wife, the clever slave, the sweet-souled courtesan – and his plots, with their coincidences, mistaken identities, belated recognition of foundling children, and acceptance of young lovers by parents, became so. Elements of them can be found hundreds of years later in the Greek romance "novels". His time is contemporary and his location often Athens or Attica. But these provide a framework for the lifelike and sympathetic exploration of the problems of everyday happenstance. Although there is always a love interest, his themes are various and lead to reconciliation in the family and with neighbours. Stylized romantic plots expose society's humdrum insecurities. The long modulated speeches so attractive to skilled actors in masks, the theatrical effects of surprise, the rapid dialogue in which one easy phrase may contain several meanings, the aphoristic wit, the moving direct appeals to the audience – the more we recover of him, the more diverse and profound he seems. His characters are rich, poor; old, young; male, female; free, slave; sophisticated, rustic; his range, so far as we can judge from the 5 per cent of his work that we know, is Shakespearean. (Hamlet's remark, "Conscience doth make cowards of us all", is taken from fragment 632.) His people quarrel, love, go to court, lend and borrow, yearn for riches and romance, get drunk, try to be good. His sympathy with slaves, for example, is almost unprecedented; in *The Farmer* he even shows a slave in love. His convincing understanding of human character, his colloquial and graceful language (mostly in iambic trimeter), and his sheer skill as a constructor of entertaining plays keep his work fresh and illuminating. He never moralizes, but he quietly puts forward ideals of tolerance, generosity, kindliness, and understanding. In other words, he is typically Greek in that he seeks *dike,* or justice – but in ordinary life, with forgiveness always the resolution.

Menander's immense skill is clearly evident in the early *Dyscolus* (The Curmudgeon), in the character of the gruff grouch Knemon, while the subtle clash and contrast of character and ethical principle in such plays as *Perikeiromene* (The Rape of the Lock), and *Adelphoe II* (Second Brothers), constitute his greatest achievement.

The works of most ancient writers have come down to us in tatters, and Menander, the last great poet of Athens, is no exception. Although he wrote more than one hundred comedies, only the *Dyscolus* (it won the prize in 317 BC) survives nearly intact; half a dozen plays are tantalizingly incomplete but sufficient for literary judgement, and a sheaf of fragments completes our knowledge. The longer pieces were discovered on Egyptian papyrus strips only in the 20th century. The comedies of Plautus and Terence, who flourished a century after Menander, are often either a close adaptation or even translation of Menander or other New Comedy playwrights, so that Roman drama could hardly have existed without his example. Before the recent discoveries, most of his immense influence derived from them; now at least we have originals.

Menander's reputation, like that of Euripides, grew steadily after his death. Although he won only eight first prizes during

his life, his plays became the basis of the comic repertoire. Because of this international popularity, he contributed to the fixing of the koine, or standard Attic Greek, that was the east's language of culture for hundreds of years. Byzantine students down to at least AD 600 and probably much later learned many of his sententious aphorisms, although in context (which was vanishing) these gnomes are always dramatic and often ironic. Now that Aristophanes, without his polis, was incomprehensible, comedy for a Greek, and indeed for us, meant Menander.

A few fragments have yet to be translated, and it is not unlikely that more will come to light. In our age of fragile relationships and moral confusion, we need them.

JEFFREY CARSON

See also **Comedy**

Biography

Born in Athens in 342 BC, Menander was a pupil of Theophrastus and a friend of Epicurus and Demetrius of Phalerum. As the author of over a hundred plays, he was and still is held to be the greatest playwright of New Comedy. His plays were popular in antiquity (he won eight first prizes) and were translated into Latin by Plautus and Terence. He died in 292, apparently by drowning in the sea off Piraeus.

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MESSENE

City in the southern Peloponnese

Ancient Messene, located in the very centre of the modern province of Messenia, was one of the best-fortified cities of ancient Greece. Situated at the foot of Mount Ithome, it was protected by an acropolis. The city was named after Messene, the mythological first queen of Messenia, but it is not clear when it was founded. It is generally thought that the Theban leader Epaminondas founded Messene in 369 BC, after the battle of Leuktra. But Plato (*Laws*, 683 d) and Isocrates (*Arch.*, 22), among other 4th-century BC authors, allude to the existence of the polis of Messene long before that date. Only later sources, such as Strabo (8. 58) and Pausanias (4. 1. 3-4), attribute the foundation of Messene to Epaminondas. Pausanias does however mention an earlier city on that spot, but refers to it as Ithome (4. 9. 2).

From 371 BC the Thebans diminished Sparta's power by uniting the peloponnesian people in strong cities. Argos and Mantinea were fortified. The Arcadian League was formed with its newly built capital at Megalopolis. The independence of Messenia was to be guaranteed by constructing the walled city of Messene. In 369 Epaminondas sent envoys to southern Italy and Libya to invite the Messenians of the diaspora to return to their homeland. Many of them did so and thus they populated the city.

Messene was built in a short time, by the joint efforts of Thebans, Arcadians, Argives, and Messenians, who together laid out streets and built houses, temples and circuit walls. At the same time Epaminondas built a harbour for the Messenians, at Kyparissia on the west coast. Pherae (Kalamata) would have been more suitable as a harbour, but there the Spartan threat would always have been near. Epaminondas' master plan succeeded, and Sparta's power was restricted between the Taygetus and Parnon mountains.

When Philip II of Macedon led his troops against the Greek city states, the Messenians formed an alliance with him. They did not take part in the Battle of Chaeronea (338 BC), because they refused to bear arms against fellow Greeks. After Alexander the Great's death (323 BC), however, the Messenians joined the Greek revolt and thus lost their friendship with the Macedonians. In 213 BC Philip V visited the citadel of Messene with his counsellors Aratus of Sicyon and Demetrius of Pharos, under the pretext of making an offering to Zeus. He was in fact planning to capture this attractive bastion and after making the offering he asked his counsellors for advice. Demetrius warned him that if he did not take the citadel, he perhaps would be sorry afterwards. "Remember that it is only by holding both his horns that you can keep the ox down" (Polybius, 7. 12). The horns referred to the bastions of Mount Ithome and the Acrocorinth, and the ox to the Peloponnese. Aratus advised Philip to withdraw, and thus avoid arousing the hostility of the other Greek states.

Philip took Aratus' advice, but soon afterwards regretted it. The same year Aratus died, presumably poisoned by Philip. A year later Demetrius of Pharos tried to capture Messene by a surprise attack, but the inhabitants resisted fiercely and defeated the Macedonian troops. Demetrius was killed in battle.

Messene was finally captured by Nabis, the tyrant of Sparta, in 195 BC. He abandoned the city after a short time, due to the threat of an attack by the Achaean League. In 191 BC Messene was forced by the Romans to join the Achaean League and in 146 BC, like all Greek cities, it became part of the Roman empire. Hostility with Sparta continued to play an important role in foreign policy. As the Spartans favoured Octavian (later Augustus) in his struggle for power, Messene was forced to choose Mark Antony's side. After the battle of Actium in 31 BC Messene lost control of the cities in the Mani.

The city of Messene flourished until the end of Roman control over Greece. It remained the capital of the free Messenian state until the 4th century AD. In AD 395 the Goths destroyed and depopulated the city, which was never to be inhabited again. The village of Mavromati, between the ancient city and Mount Ithome, is a recent settlement.

On top of Mount Ithome stand the remains of the sanctuary of Zeus Ithomatas. It was there that Philip V of Macedon was tempted to seize the city. On the way down one crosses the remains of a temple. This might be the temple of Artemis Laphria, mentioned by Pausanias (4. 31. 7). However, an inscription found at the spot refers to Artemis Limnatis. Other public buildings revealed by archaeologists are a theatre and a stadium. The most striking feature of the city is the vast Asclepieum. The temple of Asclepius and his daughter Hygieia is surrounded by smaller temples of unknown use, a bouleuterion, an odeum, and, of course, baths. The Sebasteum to the north of the temple proves that the city flourished in Roman imperial times. The worship of Asclepius in Messene is also evidenced by the fountain in the centre of the city, assigned to Arsinoe, in Messenian mythology the mother of Asclepius.

The walls of Messene are as imposing to the modern visitor as they were to the ancients. Pausanias (4. 31. 5) was impressed by their construction and considered them stronger than those of Byzantium and Rhodes. The 10-km circuit connects the city with the acropolis on Mount Ithome. Two city gates are well preserved: the Laconian Gate on the saddle between Mount Ithome and Mount Eva and the impressive Arcadian Gate on the western side of the city. The wall is best preserved in this western section with its round and square two-storey towers occuring at intervals; it makes the site one of the most interesting example of 4th-century BC architecture.

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MESSENIA

Region of the Peloponnese

Messenia is one of the seven provinces of the Peloponnese. It covers the southwestern part of the peninsula. Like most Greek provinces its boundaries are formed by sea and mountains. The eastern approach is blocked by the inhospitable Taygetus ridge, which offers passage only far down in the Mani or through the Langada pass. To the north, Messenia ends halfway across the Tetrazion mountains. Here also access is only possible through narrow passes from the plain of Megalopolis and along the coast.

The province includes the fertile Messenian plain, which leads to the Messenian Gulf, and a narrow, more or less flat, coastal area to the west. These plains are divided from the north to the southernmost point by the Aigalion ridge, of which St Barbara is the most conspicuous peak (1112 m). Kalamata is the provincial capital and with its 44,000 inhabitants by far the largest city. Other local centres are Pylos (2000 inhabitants) and Kyparissia (4500 inhabitants).

According to Pausanias (4. 1. 1–2), Messenia owes its name to its first queen, Messene. She was married to Polycaon, the younger brother of the Laconian king. She was also the daughter of the king of Argos, and therefore too proud to be satisfied with her husband's minor role in Laconia. She took Polycaon and his retinue from Argos and Sparta and crossed the Taygetus mountains. This land from then on was called Messene. Many generations later, Messenia passed to the Neleid dynasty. Neleus and his son Nestor lived in prosperity in their palace at Pylos. Nestor took 90 ships to the Trojan War, which suggests he was the second most powerful ruler, surpassed only by Agamemnon. Nestor's wealth must have been based on the agricultural resources of the Messenian plain. The Linear B tablets, found in the Mycenaean "Palace of Nestor" near the modern village of Pylos, confirm this picture. The ruler of the palace subjected the population of Messenia to a strict taxation system. The range and quantity of products were vast: wine, honey, wheat, barley, olives, figs, spices, pigs, horses, sheep, goats, etc.

After the Dorian invasion of the Peloponnese Messenia was assigned to Cresphontes. Much more violent were the Spartan invasions of the country, better known as the Messenian Wars. During the Archaic period, when other city states solved their overpopulation problems by setting up colonies, Sparta conquered Messenia and subdued its population. Much is written, but little is known about these wars. Pausanias gives a detailed report, but he undertook his travels in Roman imperial times. Therefore our knowledge of dates and facts is far from accurate. In the second half of the 8th century BC the Spartans for the first time crossed Mount Taygetus and attacked the Messenian plain. For 20 years the Messenians fought back, first under the inspiring leadership of their king Euphaes, a descendant of Cresphontes, and after his death under Aristodemus. Finally, however, the Spartan Ithome. The Messenians kept their autonomy by paying the Spartans half of the produce of their land. After a rebellion in the second half of the 7th century many Messenians emigrated to Rhegium in southern Italy, where, in 493 BC, their descendants captured Zancle and renamed it Messana (now Messina). The remaining inhabitants were reduced to serfdom. The Third Messenian War (500–489 BC)

may have kept the Spartans away from the battlefield of Marathon in 490 BC. The Fourth Messenian War (464–459 BC) was a Pyrrhic victory for the Spartans. Although Messenia was once again brought under Spartan dominion, exiled Messenians were settled by Athens in Naupactus. It was these Messenians who in 425 BC supported the Athenians at the siege of Sphacteria and thus put an end to Sparta's reputation for invincibility. After the Peloponnesian War the Messenians were driven from Naupactus by the Spartans and again went in exile to southern Italy and to Euthesperides in Libya (later Berenice). Finally, after the Battle of Leuctra (371 BC), where the Spartan army was defeated by Theban forces, Epaminondas repatriated the Messenians from the diaspora and built (or refortified) for them the strong city of Messene at the foot of Mount Ithome. He also rebuilt Kyparissia, to be used as the port and harbour of Messene. Sparta never regained control of this area and Messenia remained independent until the Roman conquest of Greece in 146 BC.

Information about Messenia under Roman rule is very scarce. The country seems to have had a certain kind of autonomy, but being a part first of the province of Macedonia, and after 31 BC of Achaea, Roman authority was never far away. Emperor Augustus gave the cities of the Mani to Sparta; Tiberius assigned the cities on the western flank of the Taygetus mountains to Messenia.

The barbarian raids of the 4th century AD mark the end of antiquity. Alaric and his Visigoths invaded Greece and sacked the major cities and sanctuaries. In AD 395 the city of Messene was destroyed and depopulated. It does not appear to have been reinhabited in the medieval period. During the 7th and 8th centuries AD Slavs settled in Messenia. Medieval city names such as Sitsova, Tsernitsa, and Gialova are proof of this immigration. Byzantine families built fortresses over ancient foundations in Kyparissia and Kalamata.

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METALWORK

A knowledge of the processing of metals came to the Greek world in the Early Bronze Age (3000–2000 BC), in all probability from the east. The finding and working of copper and iron are attributed by such authors as Dioscurides, Strabo, Pliny, and Diodorus Siculus to the mythical demons, the Cabiri (Phrygian) and Curetes (Cretan).

In Homer we have the earliest description of the way in which a coppersmith's shop operated; the coppersmith is Hephaestus, god of fire, himself a deity who came from the island of Lemnos in the Aegean. The first examples of the coppersmith's art were found in the Cyclades – the Zia cave on Naxos, Kefala on Kea – at Knossos in Crete, at Yali in the Dodecanese, and in Cyprus. The on-the-spot processing of the metal copper and its alloy bronze required collective action, the pre-existence of deposits, and organized trade. We possess no more than 100 metal objects from Neolithic Greece.

In the Early and Middle Bronze Age (3000–1450 BC) metal vessels imported from the Near East seem to have affected the shapes of ceramics in Thessaly (Dimini, phase 1), although there is early evidence for the morphological independence of metal objects in the Greek world. There is a silver *skyphos* (cup, can) from Amorgos in the Cyclades, another *skyphos*, and two gold vessels of primitive shape in the Benaki Museum in Athens. Gold *kymbes* (cups) and elliptical *skyphoi* with a spout seem to have served as drinking cups – such as the one found at the Heraea of Arcadia (in the Louvre), which has been shaped by hammering from a single leaf of gold, apart from the handle. These show that the inhabitants of mainland Greece also made vessels from precious metals.

In Crete silver objects from the early Minoan period have been discovered on the islet of Mochlos. One cup, with a handle, was full of gold jewellery. In the Minoan palace period (Knossos, Mallia, Phaestus) a brilliant civilization, considered to be Europe's first, developed; it dominated the whole of the Aegean and had constant contacts with the east and with Egypt. At the beginning of the 2nd millennium BC metalwork and metal vessels developed to the point where they became models; their shapes were copied and their grooved and chased naturalistic decoration appeared in paint on ceramic vessels. The horde discovered at Tôd in Egypt (tomb of Amenemhet, 1940–1938 BC), consisting of 153 silver cups and only one in gold, is in all probability from Crete. There were deposits of silver on certain of the Cyclades, at Akrotiri on Thera, and in the Laurium region in Attica, all workable before 1600 BC.

The commonest type of vessel made of gold or silver in Crete seems to have been the drinking cup. The gold cup with relief decoration consisting of spirals and rosettes from the so-called Aegina Treasure in the British Museum must also be Cretan. Objects made by the "Kaptaru" (Cretans) were, according to texts from Mari in the mid-Euphrates, much sought after. Small scale carving (seal carving) and the art of metalwork reached their highest point during the "New Palace" period, which produced superb chased ritual swords with inlaid gold, decorative gold double axes – symbols of the Minoan religion (votive offerings from the sacred cave of Arkalochori, of 1600 BC, in the Herakleion Museum), figurines, chased or cast, relief or engraved vessels, inlaid with sacred bulls' heads, and bronze *lebetes* (cauldrons) to hold a whole sheep for boiling. The handles of cups and the upper part of closed vessels such as *prochoi* (jugs) and *hydriai* (water jugs) were made from separate pieces of metal; although it seems that the craftsmen of the Aegean area knew the art of soldering, they nevertheless preferred to join the parts by riveting.

The eruption of the volcano of Thera (Santorini) around 1500 BC swept away the peaceful matriarchal and refined Minoan civilization which was succeeded by the equally brilliant Mycenaean civilization of mainland Greece. Large centres of Mycenaean culture have been identified at Mycenae, Tiryns, Pylos, Athens, Thebes, Orchomenus, and Iolcus. The

best-known branch of art in the early part of the Mycenaean period, influenced by the Minoans, is metalwork, as is illustrated by the wealth of vessels, tools, and jewellery found in the royal tombs, reminiscent of the high standard of living; figurines are comparatively few. Purely Mycenaean metalwork makes its appearance in the many bronze household utensils – in all their different forms with engraved or relief ornamentation – that were handed down from generation to generaton as heirlooms or dowries (the Dentra tombs, the hearth with the tripod at Knossos, Perati in Attica, Curium in Cyprus). The fine gold cups from a tomb at Vapheio (Sparta), for example, show the capture of wild bulls (Athens Archaeological Museum). Also striking are the huge bronze figure-of-eight shields and gold engraved seals, the swords decorated with inlaid gold and niello (a blue-black alloy of copper and silver with sulphur), and the gold masks made to adorn the faces of dead kings and notables, with their imposing features, such as that once thought to be Agamemnon's with its engraved moustache and beard.

The Panhellenic campaign of the Achaeans against Troy is an indisputable historical event. A dramatic scene from a siege is shown on the famous "siege *rhyton*" (drinking horn) from the acropolis of Mycenae, grave IV (Athens Archaeological Museum). At the time of the campaign against Troy and in the early 12th century BC that followed, there was a distinct decline in the arts throughout the Aegean, coinciding with the destruction of the centres of Mycenaean civilization for reasons that are unknown to us. Nevertheless, there was a significant change in the technology of metals, bronze being replaced by iron for tools and weapons, though metal objects were rare. In the 11th century BC the early Geometric style marked the beginning of a long process leading in the end of the achievements of Archaic and Classical Greece.

The establishment of Greek colonies, from the Pillars of Hercules, Italy, Sicily, the Crimea, and Asia Minor to Phoenicia, brought a lively trade with the Near East, which gave a new boost to the demand for and working in metals. The development of metalworking from the early 8th century BC onwards was impressive. All the metal figurines (of copper or bronze), male and female, are shown nude. The females convey a sense of immobility, with their arms held down the sides of the body, while the male figurines, which form the overwhelming majority down to the 8th century BC, are shown with their hands raised in an attitude of worship, as in the case of the male figurines from Gazi and from Karfi in Crete. In the Geometric period the stylized depiction in figurines of animals such as the lion and a great number of bronze colts from workshops at Argos, Olympia, Corinth, and Laconia made its appearance.

Around 725 BC bronze figurines from Attica take a more naturalistic and less stylized form. The beginnings of the depiction of organic details (clavicles, chest muscles, indication of the locks of hair) can be seen in the figure of a warrior wearing a helmet, from the Acropolis.

Before the end of the Archaic period, scenes from everyday life made their appearance in metalworking, together with figures such as a drinker or flute-player from Sparta or Olympia, a lyre player from Herakleion in Crete, an archer from Delphi, and a number of compositions in bronze, such as charioteers on their chariots, the most important example being the well-known *Charioteer of Delphi*. In historical times iron, and a knowledge of how to work in it, prevailed over bronze throughout the Greek world, without the use of bronze going completely into abeyance. Nevertheless, since iron rusts and breaks up, only a very few examples have survived, such as a gilded iron ring in the Athens Archaeological Museum. One of the regions richest in copper ores was Cyprus – hence the Latin *cuprum*. Homer knew of the copper of Tamassos in Cyprus, which he mentions in the *Odyssey*.

It was from Cyprus, from around the middle of the 2nd millennium BC, that a standardized mass of pure copper in the shape of a pillow, weighing one talent, went to many parts of the ancient world as raw material. Sardinia and southern Spain (Tartessus) were also important sources of copper. The origins of the tin that was necessary for the hardening of the prehistoric alloys remain obscure – perhaps it came from Afghanistan – but in historical times we know that the tin used was derived from the Tin Islands (Cassiterides) – Britain – and that it reached the Mediterranean via the Iberian peninsula and Gaul. Lead may also have been used for the hardening of the alloy. This was to be found in large quantities in Greece, for example, in the mines of Laurium, as a by-product of the production of silver (tin was totally absent).

The two principal methods of making bronze objects (figurines of animals or human beings, tripods, jewellery) in early antiquity, and throughout the centuries down to the present, were the casting of the molten alloy in a suitably prepared mould (such as, for example, the plaster moulds of the late 10th century BC from Lefkandi on Euboea for the making of tripod feet), and beating it out with a hammer. The best bronze sheeting had a 5–10 per cent admixture of tin. An increase of the tin content rendered it fragile, but gave it a superb yellowish colour like gold, as is demonstrated by the famous Derveni *krater* (mixing bowl) of Hellenistic times, whose metal has a 15 per cent tin content. The chasing technique was used extensively in the 8th and 7th centuries BC for the production of statues of medium size. Famous works of chasing are the *Divine Triad* of the 8th century BC from Dreros, Crete, of a height of 0.80 m, nailed to a wooden core (Herakleion Archaeological Museum), and the silver bull from Delphi of the 5th century BC. In the case of larger cast statues, for reasons of economy of the metal, from the mid-seventh century BC the technique known as the "lost wax" method was devised.

From the 5th century, meanwhile, a new technique of "indirect" casting came to be used whereby a clay model was made and a mould ("negative") was produced from this, making it possible to have a large number of identical cast objects. The details, such as the hair, the eyes, and the nails, were incised with a sharp instrument. Often the pupils of the eyes were of inlaid ivory, and the nipples and lips of plain inlaid bronze.

The success of the Athenians and their allies against the Persians (490–479 BC) led to the splendours of the age of Pericles and of Classical Greece with its humanistic philosophical systems and its universally admired art. The Chalkotheke, the building next to the Parthenon on the Acropolis of Athens, housed the metal votive offerings to the goddess Athena – some of bronze, but chiefly of precious metals.

The Spartan Telestas, of the 6th century BC, and the great Myron, of the 5th century BC, belong to the same category of craftsmen: they were at one and the same time workers in bronze and silversmiths. Myron is credited with the making of

silver drinking cups, while the great sculptor Phidias himself produced the parts in silver of the chryselephantine Zeus, as can be seen from the earthenware moulds found in his workshop at Olympia.

Herodotus tells us that Corinth was an important centre of working in bronze. In Classical times, gold and silver vessels, chiefly *hydriai*, were made in southern Greece, as can be seen from the catalogues of the Chalkotheke on the Acropolis, but not a single one has survived. In the 4th century BC, bronze figurines and *hydriai* for funerary purposes ceased to be made at Athens, while *hydriai* and receptacles for ashes continued to be produced in gold and silver. In Magna Graecia, Tarentum was an important centre for repoussé metalwork. Silver folding mirrors with scenes in relief and silver vessels with gilt details, now in the Metropolitan Museum of Art in New York, have been found in tombs.

Modern archaeological research has demonstrated that the inhabitants of central Macedonia (Sindos) in the 6th century BC, and those of Acanthus in Chalcidice (a colony of the island of Andros), were silversmiths of exceptional skill, producing silver cups, kraters, etc. (Herodotus, 7. 119). The silver mines of Siphnos and Lesbos, and later those of Laurium in Attica, have provided us with valuable information on the advanced technology in this field.

The biggest centre for such work in Hellenistic times was Alexandria, and a striking description of the city of Ptolemy II Philadelphus (271 BC) is given by Athenaeus in his *Deipnosophistai* (5. 196a–203b). The city's luxury and wealth were fabulous. In its processions 1600 children each carried a gold and a silver vessel, and Athenaeus describes a vast silver *krater* with relief decoration of the Samian type and four equally enormous gold *kraters* of the Laconian type with vine wreaths, etc. These descriptions should not be regarded as exaggerations, since they correspond to the vast quantities of gold and silver vessels that were paraded in the streets of Rome as spoil from Greek cities conquered in Magna Graecia and Sicily in the late 3rd century, and from Greece itself in the first half of the 2nd century BC. Greek metal workers settled in Rome and brought their art with them (witness the masterpieces from Pompeii). A find of exceptional rarity came to light at Dion in 1992. This is a bronze *hydraulis* (water organ) of the 1st century BC. The first *hydrialis* was made in Alexandria by the engineer Ctesibius. In the Middle Ages this instrument developed into the church organ of the Western Church.

Until Classical times the products of metalworking were not made for interior decoration or to serve as collectors' items. But from the moment that Lysippus made a small-scale "tabletop" Heracles for the symposia of Alexander the Great in the 4th century BC, a new relationship grew up between humans and works of art. From then on, statuettes were used for the decoration of rooms or for collection and consequently forgeries started. After the Battle of Pydna (146 BC) the Roman soldiers prised open Greek graves at Corinth, for instance, in order to collect, for sale in Rome, the *nekrocorinthia*, bronze vessels that were grave offerings, the *signa Corinthiae* statuettes, and much sought-after bronze vessels, the *aeria Corinthiae*.

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See also **Coinage; Copper and Tin; Enamel; Gold; Iron; Jewellery; Sculpture; Silver and Lead**

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METAPHYSICS

Metaphysics is the study of the ultimate nature of everything. The topics investigated include being, body and mind, souls and God, space and time, matter and motion, causality, identity and change, possibility and necessity, particulars and universals. Basic questions include: what is everything made of? Is it one "stuff" or many "stuffs"? What is the nature of the ultimate? What is appearance and what is reality?

Metaphysics literally means "after *(meta)* physics *(ta physika)*". Tradition says the name was first used by the librarian Andronicus of Rhodes (1st century BC) who was cataloguing the collected works of Aristotle. Faced with an untitled work, he labelled it *Metaphysics*, because it was the next book placed on the shelf after the books Aristotle wrote on physics.

The study of metaphysics began with the speculations of the pre-Socratic philosophers. For about 200 years prior to the time in which Socrates flourished this rather varied group of thinkers sought answers about the nature of ultimate reality. The first of them was Thales (*c.*625–547 BC) of Miletus in Ionia. Seeking to understand nature, in terms of nature itself, Thales speculated that the source of all things in the visible world was water.

Thales' protégé at Miletus, Anaximander (*c.*610–540 BC), was the second member of the Milesian school. He speculated that the ultimate was the "boundless" or "unlimited" *(apeiron)* which was a sort of odourless, tasteless, colourless,weightless, "stuff" out of which everything comes. The "boundless" also moved in a sort of vortex motion to produce the visible things of the world.

Anaximenes (*fl. c.*546 BC) was the third and last of the Milesian school. He speculated that the first principle of all things was air. His great achievement seems to have been the

suggestion that there was continuity and serial development in the pattern of the condensation of air "downwards" into denser materials and the corresponding rarefaction of dense material "upwards".

Xenophanes (*c.*570–478 BC) of Colophon objected to the theology of the poets. His problem with Homer and Hesiod, as well as many other poets, was that they told stories of the gods and goddesses engaging in shameful behaviour. They could be hateful, violent, capricious, selfish, adulterous, lying, and scheming. He speculated that there must be one ultimate god who was the source of all.

Heraclitus (*fl. c.*500 BC) of Ephesus is famous for the saying, "I step into a river once, but I cannot step into the same river twice." By this he speculated that the only thing that does not change is change. He identified the ultimate stuff of the universe with fire, but also found it to have order inherent in it. The ordering principle he identified as reason *(logos)*. The Ionians (discussed above) were materialistic in their cosmological explanations. They were also monists (claiming that there is only one kind of basic reality) The Italian school (Pythagoras, Parmenides, Zeno, Melissus, Empedocles), on the other hand, claimed that ultimate reality was of more than one kind.

Pythagoras (*fl. c.*530 BC) of Samos moved to Croton on the south Italian coast. According to tradition, one day he passed by the blacksmith's shop and heard different pitches from hammers ringing on anvils. From this experience he developed a theory of music and a theory of the origin of the universe. For Pythagoras the discovery of quantity in everything led to the speculative belief that everything is made of numbers. This view replaces a material cause of the universe with a non-material one, namely numbers. So the origin of the universe can be viewed as coming from an intellectual source.

Parmenides (b. *c.*515 BC) of Elea learned of the views of Heraclitus and completely rejected the argument that the world is constantly changing. Instead he argued that change is an illusion. For Parmenides everything that exists has being, and being is the basic stuff of the universe. To say that something has being means that it is. But, if it is, then it cannot both be and not be. Change, or becoming, means that something both "is" and simultaneously "is-not". For Parmenides something either "is" or it "is-not". For something to exist and not exist at the same time would violate the laws of logic. What is can neither be created nor be destroyed, so change he concluded is an illusion.

Zeno (*c.*490–454 BC) of Elea was a younger follower of Parmenides. He developed a number of paradoxes to defend the view that change is an illusion. Most of these paradoxes argued that motion is an illusion.The paradoxes include the Stadium, the Arrow, Achilles and the Tortoise, and the Grain of Millet.

Melissus (*fl.* mid-5th century BC) of Samos famous as an admiral, became a follower of Parmenides and produced a book entitled *On Nature and Being*. Among his contributions is the view that there exists a plenitude of being in the cosmos.

Empedocles (*c.*492–432 BC) of Acragas in Sicily was a member of the pluralist school. He accepted Parmenides' principle of being as a starting point and then postulated four basic "stuffs" – earth, air, fire, and water. These were the roots of things. They combined and separated through love and strife. Yet these are merely appearances.

Anaxagoras (*c.*500–428 BC) of Clazomenae was also a member of the pluralist school. His great contribution is the idea that there is a mind that organizes the clumped stuff of the universe into an ordered whole. Unlike the Creator of Genesis who issues divine commands, Anaxagoras' creator-god is pure mind which distinguishes and separates qualities to produce an ordered cosmos.

The Atomist school comprised the last of the pre-Socratics. Leucippus is considered to be the father of the school. Little is known for certain about his views; however, it is generally believed that his younger follower, Democritus (b. *c.*460 BC) of Abdera, preserved and developed his speculations. Democritus is reported to have said, "I take this material and I cut it until it can be cut no further and I have the basic stuff of the universe, 'the uncuttable' *(atome)."* An *atomos* of Democritus is different from modern atoms. It is like a tiny rock, the center of which cannot be split. Democritus taught that there are a myriad different atoms which combine by physically hooking together rather like burrs on clothing, or run freely in liquid fashion like marbles. The resulting view is that there is a plurality of atoms. Furthermore, Democritus taught that everything is made of atoms moving in the void. Even the gods are made of atoms. This meant that only atoms moving in the void were eternal. The gods, goddesses, the world, and all people were simply the product of a chance combination of atoms. Even souls were the product of atoms. In addition the forces of movement in the void would eventually produce a new rearrangement of the atoms and therefore even the gods were not immortal.

When pre-Socratic speculation failed to reach a single unified answer about the nature and origin of the cosmos, intellectual attention turned to other concerns. The Sophists focused on rhetoric, and Socrates on social philosophy and ethics.

Plato (*c.*429–347 BC) gave metaphysical speculation new life. Plato was deeply influenced by the teaching of the Pythagoreans. Seeking to explain both change and permanence, he combined the ideas of Heraclitus and Parmenides. Plato used the Socratic method of dialogue to seek for knowledge of the ultimate. He found the ultimate nature of the universe to be derived from ideas. Just as everything in the universe has quantity, so it also has a shape or a form *(ideos)*. In the forms of things he found the ultimate stuff of the universe. The visible world is ever a world of Becoming, composed of copies of the eternal forms. These reside in the invisible world of Being. In the *Timaeus* he describes how a creator-god mixes the forms with matter to make the visible world.

Aristotle (384–322 BC), the most famous of Plato's students, wrote about the topic of metaphysics calling it "first philosophy" because it dealt with the first things of the cosmos. Among his metaphysical ideas are the four causes: material, formal, efficient, and final. He rejected Plato's forms for being as substance. Aristotle's great achievement was to summarize in an orderly fashion and extend the speculations of the Classical period.

After the death of Aristotle the changed political conditions brought about by the conquests of Alexander the Great reoriented the focus of philosophical speculations to "philosophies of withdrawal". Cyrenaics, Epicureans, Sceptics, Cynics, and Stoics all advocated philosophies of life which sought to find meaning in life apart form the state. Epistemology, ethics, and social philosophies were the main concern.

Neoplatonism developed a rich literature of metaphysical speculation that posited God as the source of the forms. From the 3rd to the 6th century AD this philosophy developed the idea of the chief form being the One. The One emanates or overflows in being to create the visible world. The most important members of this school were Plotinus and Proclus.

Christians encountered a dynamic mix of philosophical schools in the Greek-speaking world. In particular they found three competing cosmologies widely discussed: pantheism, materialism, and Platonism. Of these three Platonism was closest to the Christian view on the origin and nature of the world. As people of philosophical training became Christians they applied their philosophies to theological interpretation for both apologetic and dogmatic purposes.

The emperor Constantine I the Great, seeking to unify his empire on a religiously uniform basis, called for an ecumenical council of the Church to meet at Nicaea in AD 325. The debates and resulting creed were fraught with philosophical metaphysical ideas. These were used to describe the nature of the Trinity. Later councils would also deal with the *Logos* Christology of the Gospel of John in order to describe the two natures of Christ. For its theological needs Christianity utilized Greek metaphysical ideas.

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See also **Philosophy**

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METICS

Resident aliens

The word *metoikoi* in ancient Greek literally means "co-inhabitants" and was used to define the foreigners resident in an ancient city state, who had a special status and special rights in contrast to the citizens (and also in contrast to the foreigners who were only travelling through and had no rights at all). Metics existed in every Greek town (under different names, e.g. *epoikoi* or *synoikoi)*, but what is known about the term is mainly shaped by the evidence from ancient Athens. There especially (though not exclusively) the development of such a status of "resident aliens" seems to have been conditioned by two factors: on the one hand, the frequency of immigration (Athens was a magnet for foreign merchants and artisans in Classical times), and on the other, the pride of native Athenian citizens who refused easy access to full citizenship. This is already reflected in Solon's law about the exceptional admission of foreigners into the citizen body (Plutarch, *Solon*, 24.4), thereby favouring the emergence of a class of "second-class citizens".

Metics were free people, but had lesser rights than citizens; their group was made up not only by foreigners migrating from other cities (or countries, non-Greek ones included) but also by former slaves who had been set free by their masters. In the former case, they had to be registered a certain time (probably a month) after their arrival and to pay the *metoikion*, a poll tax (which was not levied on citizens), as well as some other taxes imposed on foreigners and a special fee if they wanted to deal in the Agora. (If they failed to pay the *metoikion*, they could be sold into slavery.) Metics had to be enlisted in an Attic deme (local community or village) to acquire the right to dwell there (in inscriptions this is indicated by the expression "living in ... "behind the metic's name); in many cases this was Piraeus, the centre of Athenian commercial activity. Although metics enjoyed full control over their portable possessions, they were not allowed to acquire land or buy a house in Athens; therefore numerous metics put their skills into trade and crafts; the world of money transactions was largely dominated by them as well. Metics could attain *isoteleia*, i.e. citizen-like status with respect to financial duties to the polis; in court, however, a so-called *prostates* (a citizen acting as guardian) had to represent them. Metics had a clearly defined role in the city's great festivals: they had a fixed position in the procession of the Panathenaea, and they could even function as a choragus (i.e. a sponsor) at the Lenaea, but not at the Great Dionysia. Moreover, they had to do military service, usually in the infantry. On the whole, metics had no political rights and almost never a possibility to acquire full citizen status, because that status could only be conveyed by birth, and the rigid citizenship law of Pericles of 451/50 BC even required Athenian descent on both paternal and maternal sides. Exceptionally, though, the

Athenian people's assembly *(ekklesia)* could bestow citizenship on foreigners for outstanding merits.

It is not clear how many metics lived in Athens (as also the exact number of the whole Athenian population is still a very controversial subject); a population count in the late 4th century – reported from the census of Demetrius of Phalerum probably in 317 BC – suggests that there were about 10,000 metics and 21,000 citizens. The Athenians were not always very well disposed towards the metics – they seem to have been made fun of in several comedies the titles of which are preserved – probably because there were many former slaves from "barbarian" countries among them; still, because of their commercial activities and their military service they were absolutely indispensable for the Athenian state, and in fact the barbarians among them were probably the best fitted for long-distance commerce (e.g. the grain trade with the Black Sea region), because they were acquainted with these areas. In the middle of the 4th century Xenophon (*De Vectigalibus*, 2. 6) even proposed to give more rights to the metics, arguing that their activities in Athens would enhance the prosperity of the city. Numerous metics seem to have become rich (especially famous are the wealthy bankers Pasion and Phormion), and they also used their means to cultivate their native religions: the cult of the Thracian goddess Bendis was officially established in Athens already in 429/28 BC, and there is evidence for about 15 foreign cults (e.g. of Egyptian, Carian, Phrygian, Syrian, and Phoenician gods and goddesses) in Piraeus; moreover there are sumptuous grave stelae with bilingual inscriptions of Phoenician metics. (An alleged common cult of "Metoikios Zeus", however, seems to be only a fancy of the late lexicographer Phrynichus.)

The status of the metics began to lose its distinctive features in the 4th century BC, when they were allowed to act in court on their own (without a *prostates*), and came to an end in Hellenistic times, when the purchase of citizenship became very frequent (probably because the law of Pericles lost much of its importance in the 3rd century, as also did the decisions of the *ekklesia*). In this period, even foreigners staying only a short time in Athens could occasionally get the status of metics, but without having to pay the concomitant taxes.

In Hellenistic and Roman times, free people living on the territory of a polis without being citizens were called *paroikoi*, in Asia Minor also *katoikoi*.

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MILETUS

City in Ionia

Miletus, situated on the Aegean coast at the mouth of the Maeander river, was one of the great cites of Ionia. Archaeological evidence points to Minoan and Mycenaean settlements on the site. According to Homer, the Milesians were Carians and fought on the Trojan side. Neleus son of Codrus is said to have founded the Ionian settlement.

In the 7th and 6th centuries BC, when the Ionian cities were under pressure first from the Lydians then from the Persians, Miletus took a lead in colonization, founding settlements on the Bosporus and all round the Black Sea: notably at Abydus, Cyzicus, Sinope, Amisus, Trapezus, Phasis, Panticapaem, Olbia, Istrus, and Tomis. Subsequently a remarkable art grew up in mixed Scythian and Greek communities of what is now southern Russia. Milesians also took a leading part in the establishment of the Greek trading settlement at Naucratis in Egypt. Familiarity with Egypt and Egyptians made possible by this Greek oasis in Egypt was to have very great influence on Greek architecture, sculpture, vase painting, and many other aspects of the developing Greek civilization. In the 6th century the Milesians Thales, Anaximander, and Anaximenes started Greek philosophy. Hecataeus was a pioneer in both geography and historiography. He was also one of the leaders of the unsuccessful Ionian revolt against Persian rule (499–494). Miletus was sacked and many of its inhabitants killed, enslaved, or exiled. Between 479 and 412 Miletus was part of the Delian League which became the Athenian empire. Subsequently it was under Persian rule until liberated by Alexander the Great.

Miletus flourished in the Hellenistic period, and the Seleucid kings funded some of the monumental buildings which have been excavated by German archaeologists. Others were built when the city was ruled by the Romans from 129 BC. In AD 51 St Paul preached at Miletus. The city never became a provincial capital. It nevertheless prospered under Roman rule, particularly in the 1st and 2nd centuries AD when some remarkable harbour and market buildings were constructed. However, constant

effort was needed to prevent the harbour, that was the source of the city's wealth, from silting up. The site is now 14 km from the sea. Miletus went into decline in the 4th century. Under Justinian I (527–65) Miletus received a new cathedral, the baths were restored, and the harbour dredged. The bishop, who had been a suffragan of Aphrodisias, became an autocephalous archbishop. Latros to the northeast of Miletus became a centre of monasticism. In the late 6th or 7th century a new circuit of walls was built enclosing only part of the old city area, and within this the theatre was later transformed into a citadel. Eventually all occupation beyond the citadel seems to have ceased. Legend made the remains of the theatre into those of a palace, *palatia*, from which Balat, the modern name of the locality is derived.

The great oracular sanctuary of Apollo lies 16 km south of Miletus at Didyma. Founded and administered by the priestly clan of the Branchidae, it was very influential in the 6th century BC. It was refounded by Alexander the Great, and enjoyed another period of great influence in the 2nd and early 3rd centuries AD. It was sometimes consulted on the nature of god and responded in terms of a philosophical syncretism approaching monotheism. The oracle encouraged Diocletian to persecute the Christians. The ruins of the temple (118 × 16 m) are highly impressive.

Miletus seems to have been the setting of the *Milesian Tales* of Aristides, written around 100 BC, a collection of short, lewd, and erotic tales which were translated into Latin and appear to have influenced tales told in Lucian's *Onos (Ass)* and Apuleius' *Metamorphoses*, as well as the *Satyricon* of Petronius.

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MILITARY LEAGUE

Military leagues played an important role in Greek interstate relations from the late 6th century BC. The creation of a military league was based on the agreement of two (or more) states to fight together *(symmachein)*, either for a limited period or for all times. The standard Greek term for such a league is therefore *symmachia*. Participating states were obliged to have "the same friends and enemies". To coordinate warfare, military leagues usually established some sort of political body, such as *synedrion* (council) or a board of magistrates. The leadership was transferred to the most powerful state, the *hegemon*. Unlike a *symmachia*, and *epimachia* was defensive in character, i.e. it was limited to defensive fighting exclusively.

The earliest – and most lasting – military alliance was the Peloponnesian League. Its origins can be traced back to the mid-6th century BC, when Sparta entered into a series of alliances, starting with Tegea, in which its allies swore to accept Spartan superiority and to expel the Messenians from their respective country. Similar treaties seem to have been concluded with other poleis, most notably Corinth and Sicyon. These alliances were all with Sparta alone, so mutual obligations did not necessarily exist between the allies. The bilateral system, reflected in its designation "the Spartans and their allies", was the nucleus of the Peloponnesian League proper as inaugurated between 505 and 501 BC, when a league congress was first established. Its main concern was to debate and make decisions *(dogmata)* on confederate wars. All members had an equal vote and enjoyed internal autonomy. Sparta's decision, taken in its own assembly, was equal to that of the allies put together. *Dogmata* of the allies were passed with its approval exclusively. Only the Spartans could summon the congress and were privileged to supply all commanders of league forces. A treaty from the last decades of the 5th century attests the oaths taken at the reception of new members: each ally swore to have the same friends and enemies as the Spartans, to follow them wherever they led, and not to make peace without Sparta's permission. In return, the allies were granted protection against hostile encroachment. In the 5th century the league grew beyond the Peloponnese and adopted several new members, such as Megara, Aegina, and the Boeotian, Phocian, and Locrian Confederacies. Its attraction was increased by anti-Athenian and – as explicitly stated in the Peloponnesian War – anti-democratic resentment among oligarchic states. After Sparta's victory over Athens and its allies in 404, Athens itself was forced to join, though only for a brief period. In the 4th century two major changes in the organization of the league were introduced. By 382 it was agreed that a member state's stipulated contribution in troops might be commuted to a contribution in cash, and that fines were to be levied on the allies that defaulted. The second innovation, brought about after 379, was to divide the league into ten geographically grouped *mere* (districts), which were presumably meant to be roughly equal in number of troops. Despite these reforms, the alliance soon disintegrated after Sparta's defeat in the Battle of Leuctra in 371.

The Delian League (frequently called "Athenian empire", though the degree of Athenian "imperialistic" rule is disputed among scholars) was founded in 478/87 BC to continue warfare against the Persians after their retreat from Greece. Apparently at the request of the founding members, including Athens, had one vote in the confederate *synedrion*, to determine strategy. From the outset the Athenians provided all the league's officials, such as the ten *hellenotamiai* (treasurers) and the commanders of allied forces, and settled which members had to send ships and which to pay money into the treasury at Delos. The first

assessment of tributes *(phoroi)*, allegedly 460 talents, was made by Aristides. The league fought a series of successful battles against the Persians (at the Eurymedon *c.*466 BC) and quickly expanded to 200 member states, most of them in the Aegean, on the west and south coast of Asia Minor, in Thrace, and in the Hellespont and Propontis regions. There was soon disaffection with Athenian leadership, however. Many states tried to secede (starting with Naxos *c.*470 and Thasos *c.*465), but were forced back in by Athens. After a defeat in Egypt in 454 BC, the treasury was moved from Delos to Athens. One-sixtieth of the allied tribute was thence claimed as an offering to Athena (see the Athenian Tribute Lists in Merritt *et al.*, 1939). Although the alliance had lost its original justification with the removal of its anti-Persian objectives – probably stipulated in the so-called Peace of Callias with Persia in *c.*449 – Athens continued to levy annual *phoroi* and inflicted cleruchies on members who were suspected of revolt (first known at Andros, Lemnos, Naxos, and Carystus in *c.*450). Disloyal states received a harsh punishment (notably Samos *c.*439 and Mytilene *c.*427). The autonomy of the allies was infringed by Athenian decrees on the legislation jurisdiction, and financial policies of the member states. Epigraphic evidence indicates a shift in the designation from ''the Athenians and their allies'' to ''the cities the Athenians rule''. In the early years of the Peloponnesian War, Pericles openly called the Athenian hegemony a tyranny over the allies. The core of the alliance, however, remained remarkably stable throughout the war (despite a massive increase of assessment of allied tributes), which indicates that the league to some degree served the interests of the allies. After its final defeat at Aegospotami, Athens was forced to surrender its fleet and to join the Peloponnesian League. The Athenian empire was dissolved.

A second Athenian Confederacy was established in spring 378 by Athens and the founding members Chios, Byzantium, Rhodes, Mytilene, Methymna, and perhaps Thebes. After an attempted Spartan raid on the Piraeus, the Athenians invited all states to enter the confederacy on the principles laid down in the King's Peace, so ''that the Lacedaimonians shall leave the Greeks free and autonomous''. Eventually up to 70 members joined. Each state had one vote in the common council at Athens (except the Athenians), who were entrusted with the hegemony, but were not represented in the *synedrion*. The allies were guaranteed autonomy and freedom from the tribute. Athenian ownership of land or property in allied states was prohibited, i.e. the Athenians refrained from the system of cleruchies. In practice, the alliance soon deviated from these principles. By 373 BC the tributes – called *synataxeis*, to avoid the term *phoroi* – were collected to meet the costs of campaigning. Probably in 365 BC the practice of cleruchies was revived at Samos (though technically not a member of the league). The integrity of the league was severly threatened by revolts of Rhodes, Chios, Cos, and Byzantium in 357 BC (supported by Mausolus of Caria), which led to the Social War between Athens and its allies. In 355 BC Athens was forced to accept the secession of virtually all significant members, except Euboea and a few northern Aegean islands.

Unlike the partial alliances of Sparta and Athens, several attempts were made to establish a combined military league of – at least theoretically – all Greek states. The scope of a ''Hellenic League'' was to defend Greece proper against foreign invaders. In autumn 481 BC a Hellenic League was founded at Sparta, to meet the impending invasion by Persia. Its designation, promoted by its members and widespread among historians, is slightly misleading, since the league by no means included all Greeks. The allies agreed to end wars among themselves and to give mutual aid at all times. Each member state elected one *proboulos* (respresentative) and had an equal vote in the council. Since the Spartans had the greatest military strength of land forces, it was agreed that they should exercise the *hegemonia*. Athens, contributing more than half of the fleet, had some claims on the maritime command, but the allies distrusted it. The symmachy fell apart when the Spartans withdrew from the alliance in 478 BC. A second Hellenic League was founded in 340 BC against Philip of Macedon, mainly on the initiative of Demosthenes. A *synhedrion* was established in March 340 at Athens. The hegemony rested with the Athenians, who were also responsible for the collection of allied *syntaxeis* (tributes). The league was defeated on the battlefield at Chaeronea in 338 BC. In return, Philip summoned the Greeks to Corinth the following summer and united all Greek states (except Sparta) in the so-called League of Corinth. Its constitution, set down by Philip, embodied traditional clauses both of earlier military leagues and of common peace treaties from the 4th century. Each member state had one vote in the *synedrion* and was obliged to send troops according to its population. Philip himself, the league's *hegemon*, presided over the synedrion. The allies swore not to change their constitutions and not to revolt against the king, which reveals that the league was designed to consolidate Philip's position after Chaeronea. Its military purpose, sponsored by Philip and propagandistically heralded at Corinth, was to make war against Persia. The concept of a Hellenic League was temporarily revived by Antigonous Monophtalmus and Demetrius Poliorcetes in 302 BC, and finally by Antigonous Doson in 224 BC, envisaged as a league of federal states.

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See also **Federal States**

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MINERALS AND OTHER NATURAL RESOURCES

A large number of different minerals and other natural resources have been exploited in Greece over the centuries. Major metallic ore minerals (gold, copper and tin, silver and lead, iron) exploited in antiquity are discussed elsewhere.

Clay was a very important resource in antiquity – most was used for pottery, but some special types had medicinal uses. To a geologist the term clay applies to both a group of platy minerals, and a rock dominated by these minerals. Clay minerals are commonly formed by a chemical process – weathering of older rocks on the surface, or the action of hot water (200–400°C) associated with volcanism or the emplacement of intrusions. Most deposits of the rock clay are formed by the physical process of erosion of clay-mineral-bearing rock. The liberated clay is then transported and sorted by rivers and finally deposited in a lake or the sea. Many of these clay-rock deposits were exploited directly. However, many clays are mineralogically unsuitable for making pottery as they are too stiff or they do not fire well. Suitable clays were commonly deposited in shallow continental lakes surrounded by vegetation. Eventually accumulation of sediments made the lake so shallow that plants grew abundantly. The plants died but did not decay in the stagnant water and their remains were transformed into lignite, a low-grade coal. Some red pottery clays were also obtained from the *Terra Rosa* soils developed on limestone by washing and settling of the liquid, a treatment that resembles the natural processes.

Alumen is the name given to a natural mineral that was used as a deodorant, as a salve when mixed with honey, and as an emetic when mixed with copper salts. It was also used in dyeing, soldering, and in cloth finishing. It was probably bentonite, a clay produced by the weathering and alteration of volcanic rock, that is common on Melos.

Ochre is a red powdery earth made dominantly of hydrated iron oxide. It was used for cult purposes and as a pigment, but not as a source of iron metal. It can be produced by alteration of iron deposits or by deposition directly from springs. Ochre comprises several different minerals – haematite gives a red colour whereas the iron hydroxides goethite and limonite give yellows and browns. In Palaeolithic times red ochre was extracted on Thasos for cult purposes form one of the largest underground mines in Europe. Another important source of ochre was Moschylos on Lemnos. Lemnian earth was used from antiquity down to the 19th century for its medicinal properties, and is still used locally. It was known to the Romans as Terra Sigillata, or "stamped earth", as it was made into little cakes, stamped with the head of Artemis. Lemnian earth was deposited from former springs. Rainwater falling on the nearby volcanic tuffs soaked into the rock and broke down the minerals. Iron was thus liberated and dissolved in the water. Where the springs debouched, the iron was oxidized by the air and precipitated as ochre.

Pigments used in frescos were derived from a variety of sources, both organic and inorganic, and artificial and natural. These pigments should not be confused with glazes on fired pottery, which have very different compositions. Black pigments were based either on carbon from charcoal, or on preparations of hydrated manganese oxides which occur in some sedimentary rocks. Two different blue pigments were used. The strongest blue was obtained from imported Egyptian blue. Although dominated by copper compounds, the presence of tin suggests that it may have been prepared from bronze. A much paler grey-blue or purple pigment was derived from the mineral glaucophane, which is found in metamorphic rocks from the Cyclades. A range of red, yellow, and brown pigments were all natural forms of ochre (see above). Haematite also gives a red colour.

The bright yellow mineral sulphur was used for many purposes: the pungent fumes given off when it is burnt were used as a disinfectant and for religious purification; it had many external medical uses and was applied as a poultice; it was also used in wool preparation to make it white and soft. Sulphur occurs as the native element in volcanically active areas. It can be gathered directly from the surface and purified by melting. Sulphur has been mined sporadically on Melos and Nisyros at least since Hellenistic times. Sulphur crystallizes directly from hot volcanic vapours where they leave the ground (fumaroles). These gases are usually dominated by steam and carbon dioxide, but commonly contain small amounts of sulphurous gases which crystallize to form the mineral sulphur on or just beneath the surface. The sulphur in these gases is probably derived largely from the molten rock itself, unlike the water which is generally recycled groundwater. Sulphur does not survive for a long time on the surface as it is easily oxidized to the gas sulphur dioxide or consumed by bacteria and turned into sulphate.

Emery was important as an abrasive to shape marble and other stone. It contains corundum, a hard oxide of aluminium, together with magnetite and other minerals. It is formed by the metamorphism of bauxite layers in limestone (see below). Although it occurs at several places in the Aegean, rarely does the quality match that found on Naxos. In antiquity emery was extracted form a large number of shallow quarries, principally in the eastern part of the island. More recently it was extracted from underground mines and trasnsported by aerial tramways to the coast.

Asbestos was used for making fireproof cloth. That used in Greece is a fibrous form of the serpentine mineral antigorite that crystallizes in veins up to 5 cm wide in the rock

serpentinite. The crystals are generally lined up at right angles to the direction of the vein, and form as the vein opens up. The ancient sources were on Mount Ochi northeast of Carystus in Euboea, but the mineral has been exploited recently elsewhere.

Very little metallic zinc was produced in antiquity, but brass, an alloy of copper and zinc, seems to have been known in Greece from about 700 BC. Zinc ore is quite common, often in association with lead and copper ores. The main ores are the sulphide sphalerite or calamine, a mineral produced by alteration of sphalerite on the surface. Metallic zinc was rarely produced because it is volatile at the temperatures necessary for smelting it. The resulting zinc vapour condenses on the sides of the furnace, where most of is converted to zinc oxide. In some cases the oxide was the desired product as a salve, as recorded by Galen on visit to Cyprus. Pliny mentions zinc oxide as *lauriotis*, probably after the mines at Laurium. In the 19th century zinc and antimony were produced on Siphnos and Thasos, partly from mines that produced lead and silver in antiquity.

Mercury was known in the Old World from around 1600 BC. It was used for silver and gold plating (gilding) and in the recycling of gold thread from cloth but not apparently for mining gold. Mercury is a volatile metal and it was recovered from the sulphide ore cinnabar by distillation. The main sources in the Aegean were around Smyrna (modern Izmir), where the ore is associated with young volcanic rocks. In Roman times much mercury was produced in Spain.

Obsidian was a rare and important resource in the prehistoric period as it could be readily formed into sharp blades. It is a natural volcanic glass. That used in the eastern Mediterranean for blades mostly came from Melos; further west, Lipari was the main source. Obsidian was used extensively in early times for the manufacture of tools and weapons and fulfilled the same functions as flint (which forms in sedimentary rocks) did in northern Europe. It was not completely displaced by copper or bronze as it was sharper and cheaper than both metals. Only the use of iron finally supplanted obsidian in weapons and tools. However, its use did continue in ornaments and mirrors.

Bitumen (pitch), a natural petroleum product, was used in antiquity for caulking ships and wine barrels, for protecting metals, and for magical and medicinal purposes. It is the residue left where petroleum has seeped up to the surface and the lighter, more volatile components (similar to paraffin/kerosene and petrol/gasoline) have been lost by evaporation. There are natural springs and pools of bitumen near Limni Keri, Zakyndthos, that were mentioned by Herodotus. The bedrock here is Plaleocene-Oligocene limestone, but the petroleum is probably derived from deeper rocks, perhaps the Cretaceous limestones seen elsewhere in the island. In such sedimentary rocks petroleum forms from plant remains by the action of heat in the absence of oxygen. It is lighter than water and hence tends to migrate upwards through permeable rocks or along faults, unless trapped. Despite the presence of bitumen, economic reserves of petroleum have not yet been found in the region.

Amber was used for jewellery and small items. There are no sources in the Aegean region – all must have been transported overland from the Baltic sea, where it occurs abundantly along the coast. Amber is light and few journeys would be necessary to furnish all the amber found so far.

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See also **Copper and Tin; Gold; Iron; Marble; Obsidian; Silver and Lead**

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MINES AND QUARRIES

The common use of the Greek word *metallon* to describe both a mine (e.g. Xenophon, De *Vectigalibus*, 4. 4) and a quarry (e.g. Strabo, 9. 1. 23) shows that little distinction was made between the two in antiquity. Both types of working were considered to provide resources which were of benefit to the community, either as building material or for financial profit.

Mines

Iron is found in several locations throughout Greece and the Aegean. Some of the more significant workings were in Boeotia and Laconia. It is perhaps no coincidence that the earliest Laconian currency consisted to iron "spits". Strabo (10. 1. 9) recorded the presence of copper and iron mines at Chalcis, on the island of Euboea, though there is little substantive evidence. Iron ore was extracted on Seriphos during the 14th century by the Venetians.

Precious metals were mined at several sites throughout Greece and the islands. Silver was mined on the island of Siphnos from the Bronze Age onwards and a number of workings have been investigated at Hagios Sostis in the northeastern part of the island; some of the ancient workings were identified as early as 1700 by P. de Tournefort. Further investigations in the 19th century and in more recent decades have revealed evidence of slag, litharge, and tuyères. Study of the workings themselves shows that metal chisels and picks were used in the galleries. Carbon samples suggest that some of this activity can be dated to the first half of the 3rd millennium BC. Further evidence of metalworking, though not of mine workings, has been found in the southeast of the island. The mines continued to be productive in the Archaic period; this is attested by the presence of Archaic pottery at Hagios Sostis, and the city felt able to dedicate as a tithe a treasury in the sanctuary of Apollo at Delphi. It was reputed to be the richest treasury at Delphi, on account perhaps of its contents rather than of the sculptural decoration on the outside (Herodotus, 3. 57). Coinage issued during the 5th century BC suggests that the mines continued to be worked after the Archaic period. It seems that the workings eventually went too deep, with the result that the mines were flooded at some point before the 2nd century AD (Pausanias, 10. 11. 2).

Some of the best-investigated silver mines in the Greek world are those located around Laurium in southern Attica. At

Velatouri mining activity can be traced back at least to the Early Bronze Age. A particularly rich discovery at Maroneia probably in 483/82 BC provided funds that allowed the Athenians, under Themistocles' guidance, to construct a fleet which was to defend the Greek world in the Battle of Salamis. It seems from inscriptions and other historical records that mining concessions were leased out to individuals. Leases show that some individuals held concessions at more than one location. The system largely depended on slave labour for mining and processing of the ore. Nicias was reported to have had 1000 slaves hired to work in the mines during the late 5th century BC, and Xenophon reported than some 10,000 publicly owned slaves were employed in the mines.

Linked to the mines themselves were a number of processing installations for washing and processing the ore. One of these *ergasteria* (workshops) was the subject of a speech by Demosthenes (37). The *ergasterion* concern had been aquired by Pantaenetus and employed around 30 slaves. As the money needed to acquire the ergasterion had to be raised on credit, these 30 slaves had to work hard enough for the installation to make at least the 1260 drachmas necessary to pay off the interest on the loan. A series of *ergasteria* have recently been excavated at Agrileza; material suggests that they were in use in the 4th century BC. The level of output from the Laurium mines is hard to estimate and there are few firm figures. The Maroneia mine may have yielded between 50 and 100 talents (the equivalent of 1.3–2.6 tons of silver). The mines themselves were probably abandoned during the Hellenistic period, as by Strabo's day (9. 1. 23) the silver supplies were described as having failed, and indeed the slag heaps were being processed to extract ore.

The output of the Laurium mines may well have been small compared to that of mines in Macedonia and Thrace. Ancient sources hint at the wealth derived from these sources. For example, the gold mine at Dysoron in Macedonia had a daily output in the mid-5th century BC of one talent of silver (Herodotus, 5. 17). Mines controlled by Philip II of Macedon near the later site of Philippi apparently had an annual output in the region of 1000 talents (Diodorus, 16. 8. 6). The source of wealth of individual cities in the region is reflected in the depiction of metal ingots and picks on the coinage. The island of Thasos was also widely exploited by mining and Herodotus (6. 47) was able to observe a mountain which had been ransacked by such activity. Sometime in the 460s BC the Thasians came into conflict with the Athenians and as a result were forced to hand over control of their mine on the mainland opposite their island (Thucydides, 1. 100. 2). The historian Thucydides himself had control of gold mines in Thrace.

One of the more unusual materials mined in antiquity was miltos on the island of Ceos. It was used for a variety of purposes including medicine and fulling, as well as its more popular use as a wash on the surface of Attic pottery. A number of possible mine workings have been found on the island, including those at Trypospilies. There is a reference to this ore in an inscription from the Acropolis in Athens.

Quarries

Quarries, or *latomeia*, were widespread throughout the Greek world. Often such quarries are linked to building projects in nearby cities or sanctuaries. The extensive quarries of Syracuse were used as a prison for some 7000 Athenian prisoners after the disastrous Sicilian expedition. Some of the earliest examples of marble quarrying have been found at Apollona on Naxos. A number of unfinished male statues *(kouroi)* have been discovered there, including what appears to be a large statue of Dionysus which was never removed from the quarry face. Naxian expertise in working marble during the Archaic period is reflected in their major dedication of a colossal statue, along with a substantial marble base, on the island of Delos. Marble quarries have also been identified on Paros. In the Archaic period marble from the island was transported over long distances, for example for building on the island of Siphnos (Herodotus, 3. 57).

Some of the finest marble in the Greek world came from Attica itself, and in particular from the quarries on Mount Pentelikon and Mount Hymettus, which were celebrated by Strabo (9. 1. 23). Pentelic marble, in particular, was widely used for architecture, sculpture, and inscriptions. Indeed the *metalleis* mentioned among those involved with the Periclean building programme at Athens may have been quarrymen (rather than miners). Study of stones from the Periclean buildings shows that Pentelic marble was used in a wide range of temples including the Parthenon, the Erechtheum, the Hephaesteum, and temple of Athena Nike, as well as public buildings in the Agora such as the stoa of Zeus. In the 4th century BC Pentelic marble was used for part of the Telesterion at Eleusis. Pentelic marble continued to be exported in the Roman period; for example, it has been identified at Cyrene, where it was used in the Antonine period.

The Pentelic quarries seem to have been located on the western and northeastern sides of the mountain, where the existence of some 25 quarries has been located. These were certainly active in the Archaic period, as is suggested by the find of an unfinished *kouros*. It has been estimated that some 400,000 cubic m may have been extracted. Facilities for removing the stone included the paved road which has been found at the Spelia quarry. The quarries on Hymettus may be linked to activity in the Roman period. These seem to have been located on the northwestern slopes of the mountain and also to have been served by a quarry road. Hymettan marble, with its bluish tinge, was used for the roof tiles of the Hekatompedon on the Acropolis during the Archaic period.

In spite of the quality of the marble from Pentelikon and Hymettus, other buildings in Attica were constructed of locally quarried marble and stone. Indeed it is rare for buildings in Attica to feature stone from quarries more than 4 km distant. For example, the marble for the temple of Poseidon at Sunium was extracted from a quarry in the Agrileza valley just a few kilometers away. In the workings by the cliff tower, cuttings in the quarry suggest that one of the column drums had been extracted from there. The temple of Nemesis at Rhamnous features marble quarried locally at Hagia Marina.

Attic quarries are occasionally mentioned in inscriptions. For example, one dispute related to the rent on a quarry at the Piraeus in the late 340s BC. Rent from quarries could contribute to the maintenance of cult. For example, the sacrifices at the Asclepieum at the Piraeus were paid for by the rental of the quarry, and at Eleusis quarrymen in 332/31 BC made payments to the cult of Heracles in Akris.

Black limestone from near Eleusis was used on the Erechtheum and the Propylaea. Local limestones (poros) were used for public buildings in the Agora such as the Old Bouleuterion, as well as for building projects at Brauron and the Amphiareion. Imported stones in Attica include Aeginetan stone that was used on the Erechtheum and the Hephaesteum, and Parian marble for the Hephaesteum. At Eleusis stones were imported from the Piraeus, Steiria, and Aegina, suggesting the relative ease with which stone could be transported by sea.

Some of the major building projects in Greek sanctuaries required the movement of stone from quarries some distance from the place where it was to be used. For example, rebuilding of the temple of Apollo at Delphi in the 6th century BC involved marble from Paros (Herodotus, 5. 62), and in the 4th century BC the whole temple was rebuilt in limestone quarried from near Corinth. Marble imported from Paros was also used for the pediments and metopes of the temple of Zeus at Olympia. The blocks needed to carve the pair of centaurs with lapith women in the west pediment would originally have weighed some 15 to 20 tons. It has been estimated that the construction of the temple of Zeus would have required approximately 160 tons of marble.

More specialized marbles were also quarried in Greece. *Rosso antico*, also known as *marmor Taenarium*, was a red to purple fine-grained marble quarried on the east side of the Taenarus peninsula in Laconia. The quarries, noted by Strabo (8. 5. 7), may have been worked as early as the Bronze Age. Marble from here was used in the so-called Treasury of Atreus – a Mycenaean tholos tomb – at Mycenae; other examples of its use are known in Crete and Thera. The marble seems to have become popular for inscriptions during the Hellenistic period, and two honorary decrees from Delos, one for a Spartan and the other for a resident of Cythera, used the stone. It was even exported to Cyrene for a statue of Ptolemy II Soter. Sculpture in *rosso antico* also became popular in the late Hellenistic and early imperial periods. From the same area was quarried *nero antico*, a grey to black marble (Pliny, *Historia Naturalis* 36, 135).

Other exotic stones from Laconia include *verde antico*, which Pliny the Elder (*Historia Naturalis*, 36, 55) described as "brighter than any other marble". These quarries were mentioned by Pausanias (3. 21. 4) as being near the village of Krokeai. The stone was apparently extracted like river pebbles. In the Roman period the mines may have been imperial property. Other Laconian quarries are known in Taygetus, which may have been Roman imperial property, as Strabo (8. 5. 7) recorded that they had been newly opened in his day. On the island of Euboea green cipollino was quarried in Carystus (Pliny, *Historia Naturalis*, 36. 48). Strabo (10. 1. 6) noted that in his day the quarry from which the columns came was located at Marmarium. Strabo (9. 5. 16) noted other exotic marbles from the Greek world, including "decorated" (*poikile)* marble from the island of Skyros.

Archaeological evidence for later quarrying in Greece has been hard to detect. Quarries on Mount Tisaion in Thessaly were probably worked in the Byzantine period, and perhaps also the white marble quarry at Aliki on the southeastern coast of Thasos. The latter appears to have continued being worked into the Middle Ages.

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See also **Gold; Iron; Marble; Silver and Lead; Slavery**

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MINOANS

Bronze Age inhabitants of Crete

This people, termed Minoans by archaeologists after the legendary king Minos, created between 3500 and 1000 BC a palace-based culture akin to those of the Near East and Egypt. Many of

their trappings were adapted later by the Mycenaeans of the mainland (*c.*1600 BC).

The varied natural terrain and therefore resources (organic rather than mineral) of this strategically placed island permitted Neolithic peoples (from Anatolia and the mainland) to prosper by 4000 BC, after three millennia of slower development: their main achievement was the tell at Knossos. Though their material culture was unspectacular, these Neolithic farmers provided the solid base on which the Minoans flourished.

During the pre-palatial or Early Minoan (EM) period (3500–2000 BC) small farming communities were increasingly established in the most accessible and fertile areas – in the coastal plains and the Mesara – though the marginal zones were also exploited and transhumance was probably practised. Many arts and crafts were established, if at a relatively simple level: ceramics, textiles, woodworking, seals, and vases of stone were developed using local resources, but trade and exchange were required to import obsidian, all metals, ivory, faience, and so on. No doubt ideas and concepts accompanied them. Houses were fairly simple, but they had acquired considerable sophistication of plan and furniture by 2500 BC. Tomb architecture tended to be communal: round tholoi were common at the centre of the island, while square bone enclosures and caves were used elsewhere. The burial customs are somewhat obscure, but inhumations were the rule. The varied grave goods deposited point to a hierarchical society. Evidence for religion (and dress) is mostly procured from clay figurines; many were deposited at open-air sanctuaries set on high peaks within sight of the villages they served.

As the population increased and more land was occupied, regional centres emerged: some (e.g. Knossos, Phaestus, Mallia) were destined to last, others (e.g. Monastiraki) were eclipsed. Since weapons were fashioned, this process was probably not entirely a peaceful one. By 2000 BC (Middle Minoan I, or MM I) the first palaces had emerged – administrative and religious centres, controlling territories in the island. The physical expressions of this development had much in common: the palaces were ranges of rooms built around a central court and oriented to the compass points. The social complexities that created them also demanded a system of writing (hieroglyphic), as well as an ever-increasing range of material products, partly for the consumption of the elite, partly for exchange in markets abroad. Though hard to document, expertise in almost every craft was established: Kamares pottery, the exploitation of hard stones, and objects in metals are notable. New ideas continued to flow to Crete down these trading arteries, especially from the east.

Damage, perhaps from earthquakes, around 1700 BC (MM III) only served to spur on Minoan efforts: the Second Palaces arose. The next two centuries witnessed the culmination of power and material splendour – an intensification of all the existing themes. This is the likely time of Minos' thalassocracy: certainly Minoan culture was enormously influential throughout the Aegean and into the Peloponnese; Minoan traders moved and settled from Asia Minor to Egypt, visiting north Greece and probably travelling west to Italy. Modern appreciation of Minoan culture is largely based on the range and quality of goods that poured from the artisans' work areas: elegant, flowing designs; a lively palette; a concentration on natural subjects, courtly themes, and the interplay of this and the other world. The apparent harmony and balance are to our tastes, but they were not achieved in a Utopia. In comparison with the Near Eastern civilizations, the Minoans were less overtly militaristic and grandiose in their portrayal of their world; but they were not pacifists. There is ample evidence for military activities from artefacts and portrayals of warfare; some sports were violent; human sacrifice was practised. Knossos may have achieved a dominance over other cities at this time – as much through economic and religious avenues as by sheer strength. The religious centres were more localized on the palaces; chamber tombs were for collective burials of ordinary people; a few graves, as with the town and country houses, were more splendid and destined for the elite. Indeed, the building campaigns throughout the island represented a profligate expenditure of energy that may have overstretched Minoan resources: there are indications of troubled times in the 1500 BC, perhaps partly prompted by the natural disasters accompanying the eruption of Santorini. Whatever the exact mix of causes, during the last decades of LM Ib (Late Minoan Ib, after 1500 BC) settlements both great and small were destroyed, often by force, and not immediately reoccupied.

Whatever the reasons, the ultimate benefactors were the Mycenaeans, those seemingly aggressive and expanding kingdoms of southern and central Greece who took over Crete around 1450 BC. This can be deduced from the appearance on Crete of material objects, details of dress, burial customs, and other cultural traits that have precursors on the mainland. The centre (kossos to Phaestus) of Crete became the axis of the Mycenaean power base, their control of the island being loosest in the east. Essentially, the newcomers merely adopted existing Minoan customs: by means of a scribal bureaucracy the palaces maintained a firm grasp on the human and natural resources of the domains, assessing what was available and determining what produce was expected where and from whom. Labour forces in some intensive crafts (such as textiles) were maintained by rations and appear to have been of a subordinate status. Writing was essential to regulate this activity and the script employed is known as Linear B, a syllabary adopted from the earlier Minoan equivalent (Linear A), but now used to write Greek. The Mycenaean/Minoan elite was every bit as successful as its predecessor, the only real departure being the decline in some luxury goods.

By 1375 BC (LM IIIA1) Crete had recovered something of its former pattern of settlement and a prosperous level of material comfort (e.g. burials with bronzes): whatever the exact amalgam of Minoan and Mycenaean, society appeared to be settled. But evidently it was not: Knossos, both town and palace, went up in flames. The cause – disaffected Minoans, another jealous Mycenaean power, or some raid from further afield – is not known. The aftermath is not yet fully comprehended by modern scholarship: debate is divided between those who believe that Knossos and the Mycenaeans remained in control for another two centuries, and those who think that palatial control was now mostly swept away.

Something of both factors may have been involved: the pattern of subsequent habitation and burial activities at Knossos and in the Phaestus region points to at least a decline in population and material prosperity, though at Chania something more traditional persisted for some generations. If the balance of control moved away from centralization, nonetheless

a broad-based prosperity is much in evidence in the postpalatial period (LM IIIA2-IIIC). Trade networks, an integral factor in Mycenaean control of the Aegean, were still crucial to the acquisition of metals – at least one commodity can be recognized in the large-scale export of oil (perhaps perfumed) in jars manufactured in west Crete. This solid prosperity had a very practical base to it: gone are the luxurious aspects of life, gone indeed are the more rarefied crafts themselves. Gradually new religious icons (goddess with upraised arms) appear; new cultural traits gain favour (larnax, or coffin, burials); iconographies alter (increased stylization in patterns).

Though it is an island, Crete could not escape the disconcerting events that unfolded throughout the eastern Mediterranean after 1200 BC. Most of these had negative consequences for the established cultures: destruction and disturbance of peoples became common from Anatolia to Greece to Egypt. Such events are visible in Crete in the abandonment of settlements and cemeteries from 1200 BC (Later LM IIIB), in increasing material impoverishment and regionalization (e.g. small tholoi at the east). After 1100 BC (LM IIIC) people took to the hills in scattered refugee settlements (e.g. Karphi). This erosion was periodic, but relentlessly accumulative; all but the most immediate survival needs were jettisoned. The ebb and flow may have removed some Cretans east to Cyprus, and introduced other elements from the west and north into the island, including those that later became culturally definable as Dorian Greeks. (The east of the island preserved more of its Bronze Age characteristics). By 1000 BC the Iron Age was evolving: the cemeteries north of Knossos show some continuity, retained by an energetic and emerging society with ties to Athens and further afield east and west.

What memories survived from the Bronze Age are largely centred around legends concerned with Minos; more tentative connections were kept alive by such factors as the recognition that the inhabitants of eastern Crete (the Eteo-Cretans) were in some way more "native". Symbols derived from the Bronze Age past were always used: local pride placed the labyrinth on Knossian coins; Minoan finds were portrayed on stamps of the new Cretan state at the start of the 20th century. To many Cretans today the Minoans are somehow their direct ancestors, whose achievements are to be lauded, protected, and kept unsullied.

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See also **Architecture; Crete**

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MISSIONARIES

The Great Commission is the missionary duty given to Christians by Jesus Christ before his Ascension. The Gospel of Matthew reports that Jesus commanded his followers to "go out, and make disciples of all nations" (28: 19). Christianity is a universal religion that enjoins its followers to spread the good news of salvation to the ends of the earth. The universal character of the Christian faith contrasts starkly with the local or tribal and non-missionary character of most other religions.

The book of Acts records the beginning of the great apostolic missionary work, when the apostle Peter preached in Jerusalem at the Jewish Feast of Pentecost. Several thousand people became converts on that day (Acts 2: 1–41), and the new faith quickly spread to Greek-speaking Jews in Jerusalem. These were so numerous that a conflict developed between the Aramaic-speaking and Greek-speaking converts over the distribution of food to the widows in the community. To handle this a special ministry was created, the office of deacon. The first deacons all have Greek names (Acts 6: 5).

One of the original deacons, a Hellenistic Jew named Stephen, was the first martyr (*martyrion*, witness) of the Church. His death signalled open persecution, which caused the new community to disperse. This provided the opportunity for new fields of mission over the known world of the day. Acts describes how Philip, another Hellenistic deacon, converted an Ethiopian. The man is identified as a eunuch, and the treasurer of the queen of the Ethiopians (Acts 8: 26–39). The story illustrates the point that the universal message of the Gospel is no respecter of human conditions, but accepts all.

More than half of Acts is devoted to the missionary work of the apostle Paul who made three major missionary journeys. On the first he left Syrian Antioch, sailed to Cyprus, crossed the islands, sailed to Pamphilia, and then travelled to other places including Iconium before returning to Antioch. The second journey again started in Asia Minor: Paul travelled to Macedonia after receiving a vision of a man there beckoning him to come over. Eventually he arrived in mainland Greece.

Everywhere new churches were started. This journey reinforced the work of the previous two.

The mission work of Paul was facilitated by the Greek language. As the lingua franca of the eastern part of the Roman empire it made communication with vast numbers of people possible. The translation of the Hebrew scriptures into Greek, the Septuagint, had occurred well before the Christian era. This meant that Paul and other missionaries could use the Old Testament in Greek. Also the widespread use of koine Greek offered a ready medium for writing the documents that eventually became the New Testament. All but five of the New Testament books are pastoral letters by Paul or others. Most of them were written to mission churches to deal with pastoral concerns.

There were many Greeks or Hellenistic Jews in Paul's circle of missionary associates. Yet from internal evidence in the Book of Acts and other New Testament sources, such as Paul's letters to Timothy who was ministering on Crete, it is evident that from the beginning much of the mission work was being done by nameless Greek-speaking individuals.

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MONARCHY

The political landscape of the Mycenaean period consisted of independent powers of different size with a palace as their political and economic centre. The head of each palace and its surrounding territory was a king (*wanax* in Linear B) whose power was based on his control of the palace economy and his military leadership. It has also been assumed by scholars that the king was the high priest of his realm and thus also had a prominent cultic function. His power seems not to have been unrestricted, however, since he had to consider the demands of a strong aristocracy.

To a certain extent the societies of the Homeric epics resemble the Mycenaean world. Essentially an aristocratic world is depicted, though the terminology for the leading authorities is not absolutely consistent. Basically a single ruler and a council of noblemen have to be distinguished. The designation *basileus* for the noblemen obviously derives from the Linear B word *qasireu/pasireu*, which describes an official with certain limited powers. In contrast the *basileis* of the Homeric epics form the leading group of a community. The translation of the word *basileus* as "king" may be misleading at this stage; the terms "leader", "lord", or "chief" correspond better with the actual connotation. The *basileis* of the Homeric epics are distinguished from the other people by certain conditions. They are members of the leading families, which implies that they descend more or less directly from a god and that they had a profound material basis. Within this group of *basileis* there existed a code of virtues, the most prominent of which are courage, wisdom in council, and piety. Adherence to these virtues determined the actual status of a *basileus*.

Whereas the term *basileus* is often used in the plural, the denomination *anax*, which derives from the Linear B word *wanax*, is exclusively used in the singular form, thus implying some sort of monarchical power. The word may be translated as "master" or "prince". In each community, whether within the Greek army at Troy or in the smaller principalities, there exists just one *anax*. The *anax* himself is also a *basileus*, that is a nobleman. The *anax* fulfils a number of functions within the community: he is responsible for sacrifices; he is the commander-in-chief of the army; and he administers justice, thus combining sacral, civil, and military roles. His powers are not unlimited, however, since he has to consult the council of *basileis* on important questions. Although the actual status of the *anax* depends on his adherence to virtues, his position, being basically hereditary, is never seriously contested.

In the Archaic period the reality and the terminology of monarchy experience a considerable development. First, on the island of Cos, the term *monarchos* appears to become fixed quite early in the Archaic period to describe the phenomenon of a single magistrate ruling the polis. Second, and more important, the Greek world in the 7th and 6th centuries BC experienced the phenomenon of more or less unrestricted monarchs ruling a polis. The term *tyrannos* for these monarchs derives from the Anatolian languages of western Asia Minor. The prototype of a tyrant was the Lydian Gyges who in the early 7th century BC came to power by usurpation. The Phrygio-Lydian term can be translated as "chief" or "master".

While the word *tyrannos* was absent from Homer and Hesiod, archaic poets, especially Solon, Theognis, and Alcaeus, contrasted it to the denomination *basileus* as actually expressing the opposite of aristocracy: the monarchical power of a tyrant contradicted the claims of the aristocratic class for equality *(isonomia)* among themselves. The tyrant, as a member of the leading group which consisted of *basileis*, aimed at monarchical power, thus opposing the values of his class. This opposition

to the values and virtues of aristocratic society was called *hybris* (presumption, insolence). In the Archaic age therefore to be a tyrant meant being in the possession of monarchical power, but not necessarily being a violent despot. That meaning of the term developed in the course of the experience of violent rule of tyrants and within the theoretical discussion of the Classical period.

Whereas tyrannies, especially in Ionian Greece, continued to proliferate under Persian rule, in mainland Greece they had mostly disappeared by the end of the 6th century BC. In the 5th century BC some monarchies existed at the fringes of the Greek world, in Macedonia, Epirus, and Aetolia. In central Greece with the growth of democracy and in the aftermath of the Persian Wars a negative view of monarchical power prevailed: it was regarded as a form of government fitting slavish barbarians, not the free citizens of a Greek polis. Sparta had had a double kingship since Archaic times, but for the limited power of these kings the term monarchy is not really appropriate.

The movement of the Sophists stimulated theoretical discussions about different forms of government. It was in this context that monarchy began to be regarded at least theoretically as a good form of government. The rise of new monarchies in the Greek world in the 4th century BC and especially the growing power of the Macedonian monarchy under Philip II stimulated a wide-ranging discussion on the basis of the terminology of the Sophists. The discussion is well reflected in Aristotle's *Politics* (3. 14–18, 4. 10).Theoretically monarchy could have a good form, *basileia*, and a bad one, *tyrannis*. The shift of meaning since the Archaic period is noticeable. The main criterion for *basileia*, to be translated here as "royalty" or "kingship", was to rule according to the law and for the benefit of the subjects. Against this, tyranny meant the usurpation of power to rule for one's own benefit.

In the 4th century BC several treatises on kingship were written, sometimes aimed at particular kings, e.g. the "Cyprian orations" of Isocrates to Nicocles. In those treatises the picture of an ideal king was developed. A common model of an ideal king was the Persian Cyrus about whom Xenophon's treatise *Cyropaedia* has survived. Plato developed the concept of the philosopher king possessing absolute knowledge and goodness. Treatises of the 4th century BC have some basic features in common. Essentially the ideal king is portrayed as ruling for the benefit of his subjects which requires him to be generous, to be a military figure, and to be very pious.

Monarchy became the predominant political feature in Greece after the conquests of Philip II and his son Alexander the Great. After his conquest of central Greece Philip became the leader (*hegemon)* of the Corinthian League. It has to be remembered that the constitutions of the Greek cities remained unchanged. With Alexander the character of Greek monarchy changed considerably. After his conquest of Babylon in 330 BC he assumed the Persian title "king of Asia" and tried to model his royalty on Persian kingship, but he met the resistance of his Macedonian companions. Eventually his monarchy turned out to combine Persian and Macedonian elements and some new characteristics. The most important new feature was the order to the Greek cities in 324 BC to grant him divine honours, which was inspired by his achievements as conqueror and his unlimited monarchical power.

After Alexander's death in 323 BC and the wars of the Successors the Macedonian rulers of his divided empire in 306–304 BC assumed the title *basileus* themselves. By this time, royalty had become primarily dependent on military conquest. The ability to lead an army decided the royal status. Like Alexander, the Hellenistic kings regarded their territory as spear-won land and thus as a personal possession. The other predominant prerequisite of royalty was wealth. The nuclei of the Hellenistic monarchies, as with the Macedonian and Persian monarchies, were the companions (*philoi)* of the king, a group of nobles who together with the army formed the royal establishment. "King, friends, and army" was a common phrase in Hellenistic times.

Apart from these common features the Hellenistic monarchies had considerable differences. These primarily depended on the traditions of their subject peoples and the structures of their empire. The Ptolemies in Egypt established themselves in the tradition of the pharaohs. The Seleucids, who reigned in Syria, but whose empire at its peak stretched as far as India, had many different traditions to cope with. In general they showed piety towards indigenous gods. Both the Ptolemies and the Seleucids received divine honours from the Greek cities. They were honoured as liberators of the cities, as founders, or as benefactors. The cults could be for the worship of the living ruler or of his dynasty. In contrast the Antigonids in Macedonia did not received divine honours.

In the Hellenistic period a wide range of treatises on kingship were written. Like their predessessors of the 4th century BC, they were mostly aimed at particular rulers. Most of the treatises are lost, but a good insight is provided by the 3rd century BC *Letter of Aristeas* and the Neopythagorean writers Ecphantus, Diotogenes, and Sthenidas. The virtues and achievements of a king according to these treatises are military leadership, generosity, philanthropy, wealth, justice, security, and peace.

With the battle of Actium in 31 BC the last Hellenistic monarchy fell, and for 360 years the Greek world was ruled from Rome. Many traces of Hellenistic monarchy may be observed in the Roman principate. With the establishment of Constantinople as capital of the eastern Roman empire and the final division of the empire in AD 395 the circumstances of monarchy in Greece changed considerably. The emperors regarded themselves as Romans and Christianity was the imperial religion. The official ideology of the emperor consisted of his being chosen by God as lord over the world, as his vicar on earth. The way to power was usually by usurpation: when the usurper was successful, this meant he was chosen by God. Thus, as in previous periods, military victory was one of the determinants of imperial status, both internal and external.

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See also **Government; Imperialism; Tyranny**

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MOSAIC

Mosaic is a surface decoration consisting of different particles, such as stone or glass, set in a foundation, usually a mortar bed. It is primarily a form of monumental decoration, but it may also be used on a small scale.

The earliest mosaics, dating from the 4th millennium BC, were found in Mesopotamia. Mosaics existed in ancient Egypt and Minoan Crete, ancient Greece, the Roman Empire, and its Christian successor states, as well as in the medieval Islamic world. There are extensive survivals of early Christian and medieval mosaics in Italy, but the importance of mosaic as an art form there diminished in the Renaissance; north of the Alps mosaic was used only sporadically during the Middle Ages. In Byzantium the medium was exploited on a vast scale, even though its use as the most expensive form of Orthodox Church decoration declined in the second half of the 14th century. Mosaic was revived as a monumental decoration in western Europe in the 19th century, and continued to be employed in the 20th.

Even though pebbles and other natural materials are used for mosaics, in its more developed form it is made from square or rectangular particles specially shaped for the purpose, known as *tesserae* (Latin: "dice"). The more regular shape of the tesserae makes for greater precision in laying the mosaics and allows for special visual effects. The size of the tesserae is often varied, small cubes being used for faces and hands and larger ones for drapery and backgrounds. Apart from different types of stone, tesserae are made of glass and terracotta, but mother-of-pearl, shells, and semi-precious stones have also been found among mosaics. At times, mosaics are touched up with paint.

Glass tesserae are found in Roman mosaics from the 1st century AD. They were employed primarily in wall mosaics, because their brittleness did not make them suitable for floor covers. The effects of glass mosaic on walls were exploited fully only in the medieval period. Ancient and medieval glass was made from sand, potash, and lime and coloured with metal oxides; tesserae were produced by breaking sheets of glass into small particles. Gold tesserae were made by placing gold leaf on a sheet of glass and then enclosing it within another layer of glass. In early gold tesserae the lower layer of glass was colourless, but from the 8th century onwards red glass came to be used, adding lustre to the metal. Silver tesserae are made by using either silver or tin leaf. Gold and silver tesserae were rarely used before the 4th century AD.

Wall mosaics were executed in situ on a scaffolding. The tesserae were placed in the last of several layers of mortar or plaster that coated the wall (on curved surfaces nails or clamps served to hold the plaster in position). The final layer of plaster was applied in patches corresponding in size to the amount of tesserae that could be laid by the mosaicists before the plaster dried up. Rough outline drawings or, at times, highly finished paintings (e.g. at the Kariye Camii in Istanbul) were applied directly to the plaster to guide the craftsmen. Very little is known about the working methods of mosaicists. The 12th century mosaics in the church of the Nativity at Bethlehem are signed by a certain Ephraim who identifies himself as a painter and mosaicist, but usually there was probably a distinction between artists designing the imagery and those executing the mosaics, not to mention artisans specializing in preparing the plaster bed. Mosaicists are likely to have worked in teams. Larger areas requiring a single colour may have been worked on by apprentices, leaving the faces and other details to more highly skilled craftsmen. In order to facilitate the laying of mosaics, the tesserae were probably sorted into trays according to colour and size. A technical examination of the 11th-century mosaics in St Sophia at Kiev, which appear to have been executed by Byzantine craftsmen, has given some idea of the speed at which mosaics were laid: the 640 square metres of mosaic were executed in 320 days.

Even though there are some examples of mosaics on the outside of churches, especially in the Italian peninsula, wall mosaics are essentially a medium for the interior of buildings. In dimly lit interiors and on curved surfaces they are a visually more effective medium than fresco. In Byzantine art, in particular, the properties of mosaic are exploited to full effect. Mosaicists used the curved surfaces of domes, squinches, and apses to catch the natural light in order to make the mosaics sparkle and glitter. The refraction of natural light on the tesserae is enhanced by the irregular surfaces; cubes tilted at different angles and irregularly spaced are essential to creating glitter. Mosaic is, however, an inflexible medium because it consists

of blocks of pure colour. But because mosaics were designed to be seen from a distance, mosaicists were able to overcome this limitation and created, in the eyes of viewers, the optical illusion of colour gradation.

The earliest surviving mosaics from ancient Greece are the pebble mosaics from Gordium in Asia Minor (8th century BC). Pebbles were used to represent mythological scenes at Olynthus (*c.*400 BC) and Pella (4th century BC), both in northern Greece. Gradually, mosaic makers realized the advantages of using tesserae. At the temple of Zeus at Olympia pebbles are used in conjunction with cut stones. Mosaics made of tesserae from the 2nd century BC exist on the island of Delos. Pergamum was an important centre of mosaic production. Sosos, who, according to Pliny the Younger was the most famous mosaicist of the ancient world, is said to have been active there. He is credited with having invented the motif of the *asarotos oikos* (''unswept floor'') and of doves perched on a vase, both motifs being widely used in Hellenistic mosaics. Greek mosaicists were active at Pompeii, as is suggested by the name Dioscurides of Samos, which is found in two Pompeian mosaics. The surviving mosaics at Herculaneum include not only floor but also wall mosaics, as well as mosaics embellishing garden furnishings, such as fountains and niches. There are extensive survivals of late Roman mosaic floors at Antioch (3rd century AD). The bucolic scenes in the floor mosaic of the imperial palace at Constantinople are a very late example of this tradition, dating from the 7th century AD. Floor mosaics also occur in some Christian churches (Aquileia, 4th century; Palestine, 6th and 7th centuries; 12th-century France and Italy), but the rarity of such floors indicates that Christian subject matter was generally considered unsuitable for floors.

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See also **Painting**

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MUSEUM OF ALEXANDRIA

The *Mouseion* (Museum) in Alexandria was the most famous of all in antiquity. The members of a *mouseion* were originally connected with the cult of the Muses, who were worshipped at an altar, often in open-air porticoes or courts rather than in a temple, and were dedicated to the arts inspired by them. They were significant centres of literature and education, and often the focus of a society dedicated to the creation of literary compositions.

The Museum was located at Alexandria in Egypt, a city founded by Alexander the Great in 331 BC. Although we cannot as yet identify its exact location within the ancient city, we do know that it was near, or in the grounds of, the royal palace, or *Basileia*, which lay close to the harbour on the northern side of the city. It was founded in 280 BC by Ptolemy I Soter, one of Alexander's generals and a historian himself, on the advice of Demetrius of Phalerum. The latter had been one of Aristotle's pupils at the Lyceum in Athens, but was expelled from the city for his pro-Macedonian sentiments. Demetrius was influenced by the so-called Peripatetic school's approach to the acquisition of knowledge, and upon his arrival in Alexandria he persuaded Ptolemy I to establish an institution dedicated to the pursuit of knowledge along the lines of the Athenian model. The Museum was greatly expanded by Ptolemy II Philadelphus (308–246 BC).

Since we do not have any extant remains, we must rely on Strabo's description of it (*Geography*, 17. 1. 6–10) during the period when he was resident in the city – the late 1st century BC. He states that the Museum was part of the royal palace, and served as a gathering place for scholars, artists, and literary figures who held property in common. The facilities consisted of an *exedra*, or crescent-shaped arcade with seats for lectures, a *peripatos*, or covered walkway planted with trees where discussions often took place, and a large house with a communal dining area.

We know that the Museum was separate from, but closely associated with, the Library, also established by Ptolemy I. It may have had its own collection of books housed in nearby storerooms, but this is only conjectural. The names of those associated with the institution are not known, except for its last member, Theon (*c.* AD 380), but a number of prominent scholars and scientists lived in Alexandria, some of whom were affiliated with the Library, and no doubt participated in some of the activities at the Museum. These scholars were drawn from a variety of disciplines – both literary and scientific – and are represented by individuals such as Euclid, Eratosthenes, Callimachus, Apollonius Rhodius, Herophilus, Aristarchus of Samothrace, Aristarchus of Samos, Aristonicus, and Apelles. They flourished in an environment of sophisticated literature at the court and the metropolitan atmosphere of the city.

Ptolemy I Soter followed in the tradition of enlightened cultural support practised by kings and tyrants from the 6th century BC (the Pisistratids in Athens and Hieron in Sicily) down to the Macedonian kings in the 4th century BC. There was also a tradition in Egypt, as in the Greek world, of the association of religion with learning, and temples served as centres of literacy and repositories for knowledge. A third factor was the competition between the successors of Alexander the Great for cultural supremacy in an empire divided into factions after his death. The forerunners of the Museum at Alexandria were Plato's Academy in Athens, where the emphasis was on science and philosophy, and Aristotle's Lyceum, also in Athens, which was concerned with the systematic collection, organization, and preservation of knowledge.

The Museum flourished under the rule of the Ptolemies (304–31 BC) and received continued support under the Roman emperors. Its members served as a group of resident scholars invited to Alexandria by the king, who then maintained them at his expense. They were provided with living quarters and food and given salaries; they were also exempt from taxation. The king appointed a president who served as an administrator, or *epistates*, and the priest in charge of the cult of the Muses *(hiereus)*. The primary focus was on research, although there may have been lectures, but its members were not required to teach. Dinners and symposia were held, characterized by a search for solutions to a stated problem; the resolutions were later recorded on papyri. Scholars were drawn from all parts

of the Greek world to participate in state-subsidized learning – the acquisition of knowledge for knowledge's sake, rather than as the means to a specific end.

Research at the Museum focused on science and literature, unlike its Athenian predecessors, which often emphasized philosophy. In the field of science, the emphasis was on experimentation and the collection of empirical data to support observations and theories, resulting in the development of a scientific methodology for the solution of problems. Textual criticism, and the collection and cataloguing of literary works in order to ensure the preservation of knowledge of Greek and other Near Eastern civilizations – an antiquarian approach to history – were the hallmarks of the institution's literary endeavours. In the course of textual criticism, critical judgements were made regarding the relative importance of different versions of a single text. Revision involved the weeding out of versions considered to be inferior. It is clear from the papyri that one of the great contributions of the Museum was the stability of the texts of ancient authors, especially Homer.

The environment created in the Museum was one of a "worldwide" intellectual tradition resulting from a fusion of oriental and Mediterranean knowledge with an international centre of culture at Alexandria, where the study of science and literature flourished. This in turn contributed to the formation of a fairly uniform metropolitan urban civilization in the Hellenistic period, of which Alexandria was one of the first examples. The Museum was instrumental in the development of the concept of an institution dedicated solely to the acquisition of knowledge, a forerunner to the universities and research institutes of the present day.

This changed somewhat in the 2nd century BC, when the native segment of the population at Alexandria reacted against the influence of Hellenism. It was reinforced by an economic crisis characterized by rising prices and social unrest, in addition to hostility among members of the royal family. Ptolemy VI Philometor expelled foreign scholars and immigrants (*c.*146 BC), and their places in the Museum were occupied by native Alexandrians. Now other centres of culture and learning competed with Alexandria for scholars and students – at Pergamum, Athens, Antioch, and Rome. At this point the city lost its position as the primary cultural centre of the Greek world.

The fate of the Museum is still disputed. It seems to have escaped destruction in 48 BC when Julius Caesar burned the ships in the nearby harbour, setting part of the royal quarter on fire. It enjoyed renewed prosperity under the *Pax Augusta*, and the Roman emperors visited and extended the buildings, especially the philhellene Hadrian. In the Roman period the acquisition of knowledge became more secularized, but Alexandria continued to be an important centre of Greek learning. Many renowned residents and visitors were still associated with its research institutions, such as Plutarch, Ptolemy of Alexandria, Lucian, and Plotinus.

Research in science and medicine flourished, as did the study of philosophy which was closely intertwined with religion, but there was a marked decline in literary endeavours. In the 2nd century AD it was famous for the New Rhetoric, and in the 3rd century for Neoplatonism. The Museum suffered under Caracalla, who expelled its foreign members and abolished sustenance payments for others in AD 216. It appears to have been destroyed by Aurelian after the city made an abortive attempt at independence after his defeat of Zenobia, queen of Palmyra, in AD 272, but it soon resumed its activities. In the 4th century Ammianus Marcellinus (22. 16) reports scientific activity, but admits that there was a decline in scholarship. In all probability the Museum did not survive long after Theodosius I's edict in 391 requiring the destruction of all pagan temples.

The collected and evaluated information and wisdom of antiquity, as well as new strides made in the acquisition of knowledge in a variety of scientific and literary fields by members of the Museum in Alexandria, have been transmitted to the present day through Islamic rulers, who were themselves very interested in Graeco-Roman civilization. In the Arab world of the 7th–11th centuries there was a period of cultural awakening characterized by an interest in learning, and translation of ancient texts by Arab scholars. Great libraries and research centres based on the Alexandrian model, such as the one at Baghdad, were established in the Islamic world. The knowledge acquired by scholars in Hellenistic Alexandria was essential to the scientific experiments of Arab scholars, also conducted according to scientific methods of research developed in that city's institutions.

The Museum at Alexandria, then, was the inheritor of the Classical Athenian tradition of the acquisition of knowledge in an environment dedicated solely to that purpose. It in turn passed that tradition on in a new form, developed as a result of its position as the centre of Greek culture in the 4th and 3rd centuries BC, and the institution continued to diffuse the heritage of Greek culture to the rest of the world in the Hellenistic and Roman periods. Its members contributed a new body of scientific information and methods, and procedures for textual revision and literary criticism in addition to their efforts at collection, collation, and preservation in an attempt to save the knowledge of the past. The Museum passed on a tradition of pure research in the context of an institutional setting to other Graeco-Roman centres as well as the Arab world. Medieval and Islamic scholars, and later Christian scholars and humanists of the European Renaissance interested in Greek and Roman civilization, built on the foundations developed at the Museum in Alexandria. They too established their own research centres dedicated to higher learning – the forerunners of modern-day universities and research institutes.

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See also **Libraries; Scholarship**

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MUSIC

Music has featured prominently in Hellenic society since the dawn of Greek civilization. The dominant form of musical expression for all periods has been song, the sacred and secular genres of which have included cultivated, rural (''demotic''), and popular repertories. Despite the existence of Hellenic systems of musical notation since at least the 3rd century BC, the historical reliance of Greek performers on oral methods of transmission has resulted in the loss to posterity of most premodern melodies. All of the complete works and substantive fragments preserved from antiquity in vocal and instrumental notations based on the Greek alphabet, for example, fit comfortably on a single compact disc. This loss is offset to some degree by the survival of many ancient song texts, from which certain rhythmic details may be recovered, as well as by rich philosophical and theoretical traditions of writing about music. No secular melodies have been preserved from the Byzantine empire, but its liturgical chant is transmitted in neumatic notation by an impressive body of manuscripts dating from the 10th to the 20th century AD. However, the realization of these neumed sources presupposes knowledge of orally transmitted conventions of performance practice, the amount of which increases with the antiquity of the manuscripts.

These daunting gaps in the historical record have made it difficult for scholars either to trace the development of Hellenic music as a continuous tradition or to draw more than superficial conclusions about its diachronic character. Interpretation of the available evidence, particularly with regard to the musical effects of interaction with neighbouring peoples, has been further complicated by the cultural politics of the 19th and 20th centuries. While some Greek scholars have made exaggerated claims for continuity, Western musicologists have until recently tended to see mainly discontinuity between the musics of ancient Greece, Byzantium, and modern Greece. Reflecting such broader cultural phenomena as the struggle to define a modern Greek identity in the face of Western expectations, these views have led to a priori rejections by various groups of a wide array of living and historical repertories as unacceptably tainted by foreign influence, usually identified as either ''Arabo-Turkish'' or ''Western''. These criticisms notwithstanding, only in the later decades of the 20th century has the study of problems for which enough sources survive to make comparative study meaningful – for example the relationship of post-Byzantine and Ottoman music – progressed sufficiently to yield reliable preliminary results.

The following brief historical survey will be limited to music created and performed by speakers of the Greek language. Further developments of Hellenic musical traditions by others – notably the medieval Latin, Arabic, and Turkish extensions of ancient Greek and Byzantine music theory, and the impact of Renaissance humanist study of Classical Greek music and drama on the development of opera – will therefore not be considered. For technical expositions of Greek and Byzantine music theory, readers are referred to the specialized studies in the appended bibliography.

Portrayals of musicians and musical instruments in Cycladic, Minoan, Mycenaean, and Cypriot art of the 2nd and 3rd millennia BC show that these societies employed music in public ritual and domestic entertainment. Echoes of these early traditions may be discerned in the narratives and poetic structures of the Homeric epics, works which mark the transition from an era of purely oral transmission to one in which the texts of certain cultivated genres of song were regularly committed to writing by their poet-composers. Witnesses to the subsequent development of Hellenic music include the texts of Greek lyric poetry, literary references to music, and depictions of musicians in pottery and other art. A formative era reportedly marked by Phrygian and Lydian influence was followed in the 7th and 6th centuries BC by the emergence of regional schools of composition and the diffusion of their characteristic forms. Lesbos produced intimate monody in the form of Sappho's Aeolian lyric, while more public forms of art were encouraged by the city states of the Greek mainland through their sponsorship of music competitions held in conjunction with such civic and religious festivals as the Spartan Carneia and the Pythian Games of Delphi. At these events professional soloists demonstrated their skill on the *kithara* (lyre) and the *aulos* by performing set pieces *(nomoi)*, while choirs of amateur singers and dancers were incorporated into presentations of choral lyrics, out of which eventually developed both the Dionysian dithyramb and tragedy.

As the traditional repertories of cultivated song reached their apogee in the 5th century BC with the works of Pindar and the Attic tragedians, the study and performance of *mousike* – music conceived as an indissoluble complex of poetry and melody – achieved an unprecedented (and since unequalled) level of significance in Greek society. The ideal Hellenic gentleman thus became a cultivated amateur musician trained by an educational curriculum in which poetry sung to lyre accompaniment held a place of honour. By the turn of the 4th century BC, however, the cultural consensus surrounding music began to dissolve in the face of internal and external pressures. Melodic and metrical innovations by such composers as Euripides and the virtuoso Timotheus (*c.*450–*c.*360 BC) transgressed the stylistic boundaries between traditional genres, provoking harsh criticism from Aristophanes and other musical conservatives. Symptomatic of these changes was the progressive replacement of an older modal system of melodically and rhythmically distinct modes (the Dorian, Phrygian, etc. *harmonia)* with a complex system of interlocking scales (also called *harmoniai)* designed to facilitate modulations. The bonds between music and poetry in Greek culture were thus left greatly weakened for the remainder of antiquity, as were the ties between amateur and professional music making. Although musical performances remained ubiquitous in the Hellenistic and Roman periods, vocal and instrumental music outside cult and state ceremony was largely reduced to entertainment. Professional musicians,

whether male virtuoso kitharists or female *aulos* players offering sexual services to symposiasts, were accordingly relegated to a low place in the social order.

Perhaps the most enduring musical legacies of the Classical period are to be found in the critical, scientific, and speculative traditions of writing about music that emerged from it. The figure of Pythagoras (*fl. c.*530–497 BC) stands at the head of two complementary streams of Greek musical thought: the one emphasizing philosophical, social, and metaphysical concerns, and the other a theoretical tradition originally concerned not so much with the craft of composition (the subject of most Western "music theory" since the Renaissance) as with the physics of sound and the systematization of tonal systems. Fundamental to both approaches was a belief in a kinship of mathematics and music, a concept extrapolated from observing that a resonating string divided in length according to the ratios 2:1, 3:2, and 4:3 produced the intervals of, respectively, an octave, a fifth, and a fourth. The influence of Damon and other early authors whose writings are now lost may be discerned in the works of Plato, a musical conservative who eschewed the use of technical terminology while exalting an idealized version of the previous century's cultivated amateurism. In the *Laws* and the *Republic*, Plato assigned *mousike* a prominent but carefully regulated role in education by emphasizing the governance of texts over melodies, which should be set only in the Dorian and Phrygian *harmoniai*. He wished to ban the remaining modes from his perfect state because of their inherently unsuitable ethical qualities, thus reflecting his belief that each of the Greek modes possessed a distinct ethos which could be imparted through habituation. The means for achieving these effects are intimated in the *Timaeus*, in which Plato echoes Pythagorean doctrine by suggesting that both the human soul and the universe as a whole are constructed according to the mathematical proportions of the harmonic series. Aristotle, while sharing Plato's distaste for contemporary virtuosity, rejected such metaphysical speculations in favour of a more empirical approach. Believing that ethos could be mediated by abstract instrumental as well as texted vocal works, Aristotle saw the ethical force of music arising from the embodiment of emotional states in sound and rhythm, a theory subsequently disseminated by his students and further developed by the Stoics. Although advocating in his *Politics* a total proscription of the *aulos*, Aristotle more closely reflected the societal standards of his time by admitting all the modes and accepting entertainment alongside education as a legitimate use of music.

Treatises of music theory also demonstrate a remarkable degree of continuity from antiquity through the Byzantine period, the significance of which is much debated because of uncertainties about the degree to which theory and practice diverged after the 4th century BC as the academic study of music became firmly entrenched among the sciences. Ancient theorists pursued two basic approaches to the definition of tonal space, both of which may be regarded as approximate theoretical rationalizations of actual practice: the accurate but cumbersome Pythagorean tradition of defining musical intervals arithmetically according to ratios of string lengths; and the linear method of Aristotle's student Aristoxenus, who believed intervals to be capable of infinite subdivision and proffered scales built on units of equal size. All ancient theorists after Aristoxenus, however, followed him in constructing larger tonal systems spanning two octaves (the Greater Perfect, Lesser Perfect, and Immutable Systems) from sets of conjunct or disjunct perfect fourths. Whereas the outer notes of these tetrachords were fixed, the relative positions of their inner pitches were determined by their genus (diatonic, chromatic, or enharmonic) and "colour" *(chroa)*. In the surviving fragment of his *Harmonics*, Aristoxenus gives the following sequences of whole (=1) and fractional tones for the tetrachord E-F-G-A:

	Sequence of Intervals
Genus	*(E - - - A)*
Tense diatonic	½–1–1
Soft diatonic	½–¾–1¼
Tonic chromatic	½–½–1½
Hemiolic chromatic	⅜–⅜–1¾
Soft chromatic	⅓–⅓–1⅓
Enharmonic	¼–¼–2

The theories of Aristoxenus were rearticulated in a group of treatises from the first few centuries AD, some of which modify them with material drawn from the Pythagorean tradition. These works include the comprehensive expositions of Claudius Ptolemy and Aristides Quintilianus, as well as the practical handbooks by Cleonides, Gaudentius, and Alypius, the last of which contains the fullest surviving account of the vocal and instrumental systems of ancient Greek musical notation. Manuscripts of these and other theoretical treatises not only continued to be studied and copied throughout the Byzantine period, but some treatises previously identified as Late Antique may have been compiled at the court of Constantine VII Porphyrogennetos (913–59). Western scholars have nevertheless customarily dismissed Byzantine interest in the theoretical tradition of antiquity as encyclopedism covering an ever-widening gap between musical theory and practice. This hypothesis is currently being reconsidered by researchers who see evidence for a dynamic application of ancient theory to liturgical music in an enigmatic compilation known as the *Hagiopolites* (a 14th-century manuscript some of whose contents may be several centuries earlier), as well as in the discussions of modal theory contained in the late-13th-century treatises of Manuel Bryennios and George Pachymeres.

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See also **Dance; Hymnography; Instruments; Song**

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MYCENAE

Bronze Age type site

Mycenae stands on a rocky knoll tucked into the northeast corner of the Argolid. Today it appears as a walled citadel with an external circuit of about 1 km. On the slopes to the north and west lie areas of settlement and beyond that at least 250 family chamber tombs in 27 separate cemeteries. These lie along a network of well-built roads which link the site to the rest of the Argolid and to the Corinthia to the north. The overall area thus used has been estimated at 32 hectares.

The site is known from Homer as the home of Agamemnon, leader of the Achaean forces before Troy, and has been the scene of archaeological investigation since the middle of the 19th century when in 1841 Kyriakos Pittakis completed the clearance of the Lion Gate on behalf of the Archaeological Society of Athens. Heinrich Schliemann's excavations of 1874 and 1876, which followed his work at Troy, disclosed the rich tombs now known as Grave Circle A and brought international renown. These finds form the spectacular core of the Mycenaean Room in the National Museum at Athens. The site has given its name to the Late Bronze Age civilization of mainland Greece but its remains are too rich for the site to be considered typical of that period. Subsequent research has been by the Archaeological Society: Panaiotis Stamatakis, Christos Tsountas, Ioannis Papadimitriou, George Mylonas, and Spiros Iakovides, and (through the generosity of the Archaeological Society) by the British School at Athens (BSA): Alan Wace and Lord William Taylour. The site was mapped in 1887/88 by Bernard Steffen; an area survey by Iakovides and Elizabeth B. French (BSA) has recently been completed.

It is now known that the site was settled in the Neolithic period (6500 BC) but only became rich in the late Middle Bronze Age (*c.*1650 BC) when it seems to have taken over hegemony of the Argive plain from Argos. A series of warrior princes were buried in shaft graves (Grave Circles B and A) or, later, in built tholos tombs of which there are nine in total in three groups of three. There was a bureaucratic, centralized, possibly "palatial" society. Overseas links extended throughout the eastern Mediterranean and as far as Italy, Sardinia, and on occasion Spain to the west. It seems probable that it was the ruler of Mycenae to whom a letter from the Hittite king was addressed using the terms "Brother" and "Great King". At Mycenae itself, as elsewhere on the mainland of Greece and at Knossos, records were kept in the Linear B syllabic script, shown by the decipherment by Michael Ventris in 1952 to be an early form of Greek. This society collapsed around 1200 BC, probably as the result of earthquakes which disrupted the elaborate economic system. There was however no cultural break and the site continued to be inhabited, though by ever smaller numbers of people, until the Persian Wars when Herodotus says Mycenae, with Tiryns, sent a contingent of 400 to fight at Plataea. The name is inscribed on the serpent column which originally held the memorial tripod for this battle at Delphi but was later removed to the Hippodrome at Constantinople. The continued inhabitation of the site may have been linked to its control of Argive religious centres or to its position in Greek mythology. As well as an Archaic temple (of Hera or Athena) on the summit of the acropolis, there are Archaic dedications at the Treasury of Atreus and a shrine with dedications to Agamemnon of Hellenistic date, though the shrine itself originated in the late Geometric period. It has been suggested that this timing may reflect the circulation of the Homeric poems.

In 468 BC the town was attacked and captured by Argos and its fortifications disabled. The 5th century BC tragedians, when dealing with the myths of the Oresteia cycle, mix Mycenae and Argos. Details in Aeschylus' *Agamemnon,* particularly the account of a series of beacon stations linking to Troy, seem to belong to Mycenae itself and the naming of Argos is thought to reflect political considerations at a date, 458 BC, soon after the downfall of the site. Schliemann thought that Euripides must have known the site in order to describe it so tellingly.

In the Hellenistic period Mycenae was revived as a *koma* or fortified settlement by Argos; the citadel walls were repaired, the lower town enclosed by a wall, the temple rebuilt, and a theatre and fountain house built. This town gradually declined and by the 1st century BC to the poets of the *Greek Anthology* (notably Alphaeus of Mylitene) had become a byword for faded glory. However, in the 2nd century AD Pausanias saw monuments which can be related to the site as known today, particularly the

Lion Gate itself and the tholos tomb which he called the "Treasury of Atreus".

Though well known by name, the site is not correctly positioned on maps until the late 18th century and the Lion Gate is not mentioned after Pausanias until a Venetian document of 1700. Some damage was done to two tholos tombs (those known as the Treasury of Atreus and the Tomb of Clytemnestra) by Veli Pasha in the early 19th century and both Lord Elgin and Lord Sligo brought back pieces of the facade of the Treasury of Atreus which are now in the British Museum. The lion sculpture over the main gate was luckily considered too heavy to move. During the 19th century the site was frequently visited and was illustrated mainly in watercolour by many travellers, but it has appeared in literature, either Greek or other European, less frequently. Sartre's terrifying *Les Mouches* is once again set in Argos. A notable exception is Sacheverell Sitwell's *Agamemnon's Tomb,* reflecting an aspect little felt by the modern tourist.

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MYCENAEANS

"Mycenaeans" is the term applied both to the inhabitants of Mycenae itself and to the inhabitants of the whole of southern and central Greece (as far as Mount Olympus) in the Late Bronze Age (1600–1050 BC). The term was also originally used by Sir Arthur Evans for the inhabitants of Crete at a similar date before, in 1905, he put forward the new term "Minoan".

It is now known for certain, since the decipherment in 1952 by Michael Ventris of their written language in the Linear B script, that the Mycenaeans were Greeks. It is still a matter for debate when this Indo-European people entered Greece or if the language developed in situ from the original core. A common interpretation of the evidence postulates that they can be identified as immigrants from northwest Anatolia whose different, rather inhibited, culture can be widely seen in the closing years of the 3rd millennium BC.

By about 1600 BC a warrior elite had come to power at a number of centres, notably in Messenia and at Mycenae. The growth of wealth among this group can clearly be traced in the finds from Grave Circle B at Mycenae, followed by those of Grave Circle A. The presence in the 15th century BC of single tholos tombs at various sites suggests the model of Early State Modules which become linked through vassaldom, intermarriage, etc. This structure can still be seen in the Homeric poems, especially the Catalogue of Ships, which appear to reflect Bronze Age conditions with adjustments for later political factors.

The simple basic culture of the late Early Bronze Age and the Middle Bronze Age developed with the access of wealth and under Cretan artistic inspiration (and possibly actual craftsmen). However, it retained its separate identity and is notable for the stylization of natural motifs into symmetrical often heraldic patterns and for the portrayal of warfare with only the rarest representations of the actual rulers in any guise.

Between 1400 and 1200 BC the influence of the Mycenaeans grew throughout the Mediterranean. They had contact, presumably from trade, with an area stretching from Sardinia in the west to the Levant coast in the east and to the north into Albania and Macedonia. Sporadic Mycenaean imports are also found in Egypt. Current research is investigating the degree of acculturation which resulted in the various regions with which they had contact. The growth of power and influence caused the culture to become more centralized and an elaborate bureacracy is attested in the Linear B documents. Artefact production seems, from what has been preserved, to have changed from elite specialities to bulk manufacture.

The second half of the 14th century and the 13th century formed the acme of Mycenaean influence. The term *Ahhiyawa*, as used in Hittite texts, seems to refer to the Mycenaeans during this period; the ruler is on one occasion refered to as "Great King", a term usually employed for the ruler of Egypt and other major contemporary states.

At the end of the 13th century BC a series of disasters, possibly the result of earthquake or climatic instability, caused the collapse of the centralized bureacracy. Though the period called Mycenaean continued until the mid-11th century BC, the artistic and cultural activity of the various regions of Greece is more diverse and there is no further evidence of literacy. By the point at which the hallmark stirrup jar is no longer produced, the Mycenaeans can be considered to have given way to the more obviously direct ancestors of the Classical Greeks.

The later Greeks were well aware of their ancestors of the Mycenaean period, though the term "Mycenaeans" is never used to refer to them. In Homer the adjective applies only to the people of the city itself. It was once thought that this awareness was not the result of cultural continuum from the Bronze Age but resulted from the rediscovery of tombs of Bronze Age date, often assigned to heroes, and from an interest in the past revived by the epics of Homer. Archaeology has now shown this not to be the case; for instance the "heroic" burial at Lefkandi in Euboea dates to the 10th century BC but is of Homeric type. The influence of this legacy on the development of myth and of legends associated with local heroes is much discussed. Homer is now thought to reflect a mainland oral tradition. The cumulative result is seen in all the surviving works of ancient authors, from Hesiod to Pausanias. The respect accorded to heroic ancestors, whether genuine or invented, is epitomized by such events as the diversion of Alexander to make offerings at the supposed tomb of Achilles in the Troad.

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See also **Linear B**

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MYSTICISM

The term ''mysticism'' is a neologism. It is, in fact, characteristic of the Greeks not to have invented a separate, abstract, term for the kind of experience they deemed inseparable from true philosophy and theology. What we do have in Greek are terms for ''mystery'', ''mystic'', and ''mystical'', deriving from the verb *muein,* to close the eye, to initiate into the mysteries. These terms denote that which is hidden, that which lies beyond the realm of ordinary existence. In this essay we shall take a broad definition of mysticism: the quest for, and experience of, unmediated contact with the divine.

Alongside the anthropomorphic polytheism of Greek religion there was an alternative form of religion represented by the mystery cults. These offered a direct apprehension of the divine unattainable within the civil religion. Of these cults the Eleusinian and Dionysian mysteries are of particular importance. The origins of the Eleusinian mysteries are pre-Hellenic. They consisted in the re-enactment of the myth of Demeter, the earth-mother, and her daughter Kore, or Persephone. They involved several stages of initiation, producing fellowship with the goddesses and culminating with the beholding (*epopteia*) of the revelation of these deities at the shrine of Eleusis. The Dionysian mysteries went beyond the Eleusian in seeking actual possession by and union with the deity. This was to be attained through rites of an orgiastic character in an outgoing of consciousness, or ecstasy. Both cults were associated with the triumph over death and the rebirth into immortality. The myth of the death and rebirth of Dionysus became a prominent feature of the Orphic movement, active from the 6th century BC. The Orphics sought deliverance from the cycle of transmigration and reincarnation through union with the divine, understood not merely as a transient ecstatic experience but as a permanent state of blessedness.

Plato's philosophy has a profound mystical element. His philosophy was pre-eminently a way, a means whereby man might reacquire true, participatory knowledge of the real, the eternal. The way's end is variously described: it is Being in the *Phaedo,* the Good in the *Republic,* Beauty in the *Symposium* and the *Phaedrus,* and the One in the *Philebus*. Unawakened to the real, eternal world, man perceives only the phenomenal world, the world of sense perception. In his famous cave simile Plato compares the situation of the unawakened to men shackled in a cave, able to see only the shadows of those who pass by behind them. Reawakening to the real world, the noumenal world of ideal Forms, is a painful but necessary experience. From that awakening one must strive for the apprehension of the transcendent reality that is the source of all that is. This way of contemplation and of intuitive, participatory, knowledge is a guiding principle in Plato's work. It is, for example, the way that the rulers of the city state must follow. It was to be an important influence in shaping the Christian mystical tradition.

The mystical way enunciated so clearly by Plato suffuses much of the Hellenic philosophical tradition. Aristotle, notwithstanding the many differences he had with his master, speaks of the contemplative life as a participation in the divine life in which the subject–object distinction between man and the divine disappears. The successors of Plato elaborated the mystical element in his work. The Stoicized form of Platonism known as Middle Platonism, which held sway roughly from the 1st century BC to the 3rd century AD, developed a much clearer idea of the transcendence of God, as opposed to the divine, than that found in Plato himself. It was against this intellectual background that many of the most outstanding examples of Hellenic mysticism emerged.

The work of Philo (late 1st century BC–mid-1st century AD) represents a form of Judaism profoundly shaped by the Middle Platonism of his day. Philo presents God as radically unknowable in himself but made known in his powers or operations. This distinction, not original to Philo, was to have a long and eventful history. For Philo, God reveals himself according to man's capacity to apprehend him. To describe this process of revelation, Philo does use the language of the mystery religions, although he was not directly influenced by them. He describes the soul's journey to God as beginning with conversion and the recognition of the createdness of the universe. Through moral purity the soul comes to know itself and to recognize its utter dependence upon God. Knowledge of God is a divine grace, not a natural capacity. It entails a going out of oneself, a form of ecstasy seen most clearly in the Hebrew prophets. The shining of the light of God within entails the suspension of the faculties, entails ''ecstasy and divine possession and madness.'' In such a state the soul is ''superior to man but less than God.''

The Hermetic movement that developed in Egypt in the first three centuries of the Christian era made some use of the Egyptian religion, and certainly drew upon Judaism, but was profoundly Hellenic in inspiration. The Hermetic texts present a guide to mystical experience, viewed from a variety of stand points. They speak of God as ineffable but knowable by man by virtue of man's divine nature. The great evil is ignorance; the mystical way consists therefore in the reacquisition of self

knowledge, which is knowledge of the divine, and the ascent to the ecstatic vision of God in which man is deified, or rather realizes his own divinity.

The extraordinarily complex and seductive set of traditions known as Gnosticism posed a grave threat to Christianity in the first three centuries of the Christian era. While teachings and practices varied greatly, Gnosticism was essentially an attempt to present Christianity as a mystery religion, analogous to the mysteries of Mithras, Cybele, and Isis that were flourishing at the time. Teaching a radical form of dualism between God and the world, the Gnostics offered an initiatory form of knowledge whereby those who had a divine spark within them might escape from the material world and find salvation. Gnostic dualism found a new expression in the 3rd century AD with the rise of the Manichaean religion.

The finest example of Hellenic mysticism is to be found in the teachings of Plotinus (AD 204–70), founder of the tradition known as Neoplatonism. Plotinus took up the perception of the transcendence of God found in Middle Platonism and developed it into a thoroughgoing statement of divine incomprehensibility. Plotinus' teaching is centred upon the soul's ascent to reunion with the One. We know from his biographer, Porphyry, that Plotinus himself experienced mystical union with the One on several occasions. Plotinus teaches a way whereby the obscurities and accretions of the material life might be removed and the return to God accomplished. Plotinus had a far more positive attitude to the material world than did the Gnostics, but is at the same time unequivocal in his understanding that the material is to be left behind on the soul's journey back to God. The return to the contemplation of God in Plotinus is also the return to oneself. It is a return to the vision of light in which the subject–object distinction between man and God disappears, in which the soul becomes that light, being ''raised to Godhood or, better, knowing its Godhood''. Centre coincides with centre: ''This is the life of gods and of the godlike and blessed among men, liberation from the alien matter that besets us here, a life taking no pleasure of the things of the earth, the passing of the alone to the Alone.''

The Christian mystical tradition took up and reshaped many features of the mysticism of the Hellenistic period, being principally indebted to Philo and Plotinus. Indeed, while Philo's influence on the Jewish tradition was initially minimal, and many of Plotinus' successors lapsed into theurgy, or magic, it was the Christians who preserved many of the insights of these two great teachers within the context of a living tradition.

Clement of Alexandria integrated much of Philo's mystical teaching within the Christian tradition, most notably the motif of the divine darkness of Mount Sinai used to express God's incomprehensibility. Clement went beyond Philo in speaking quite unambiguously of man's deification. Like Philo, Clement used the language of the pagan mysteries to describe the mysteries of his own faith: ''O truly holy mysteries, O light undefiled. I am led by the torch-bearer to be initiated into heaven and God. Through initiation I become holy; the Lord is my hierophrant and as one-who-leads-by-light [*photogogos*] seals the votary for himself.'' We should not forget how attractive this sort of language would have been to the 2nd-century Alexandrine ear.

Origen's work has a deeply mystical character, something that those familiar only with his *On First Principles* and *Contra Celsum* can be prone to overlook. For Origen the mystical life is a realization of the union with Christ effected at baptism. His *Commentary* and *Homilies* on the Song of Songs develop this theme. Origen takes Proverbs, Ecclesiastes, and the Song of Songs to refer to the three stages of the ascent to God, that is, to the acquisition of the virtues, to the proper understanding of the natural world, and, finally, to enoptic, or inspective, contemplation of God. In this understanding, the goal of the mystical life is union of the spiritual intellect, or *nous,* to God through contemplation. It does not entail ecstasy.

The Alexandrine mystical tradition formed a crucial component of the teaching of the Cappadocian Fathers. This is most evident in St Gregory of Nyssa's *Life of Moses*. It is also apparent in the works of Evagrius of Pontus and pseudo-Macarius. Evagrius made Origen's threefold distinction of the spiritual life classic. He also refrains from speaking about ecstasy. Macarius is less reserved, and speaks of the intellect as ''utterly suspended and ravished'', carried away by prayer and become one with it. He also follows Clement and Philo in using the phrase ''sober drunkenness'', a motif avoided by both Origen and Evagrius.

There was a danger in the Christian usage of the Hellenic mystical tradition that the mystical life would be seen as circular, as an escape from matter and a return to pre-cosmic unity. This element of circularity is palpable in the teachings of Origen and Evagrius. It was avoided by the Cappadocians and by Macarius in their emphasis on personhood and the integrity of the body. Union with God in these writers has no connotations of reabsorption into the divine. The teachings of pseudo Dionysius the Areopagite, deeply influenced by the Neoplatonism of Plotinus and Proclus, do not adequately avoid the dangers of circularity. While their wonderful evocations of the suprarational and ecstatic apprehension of God in the state of perfect unknowing were to be enormously influential, they lacked the personalistic element so vital to true Christian mysticism.

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See also **Orgiastic cults**

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MYTHOLOGY

The Greek word *mythologia,* which occurs for the first time in Plato, simply means ''storytelling''. But in modern usage ''mythology'' refers both to the corpus of myths and to its systematic study. Taken in the former sense, Greek mythology consists of a large number of stories about gods, heroes, the nature of the cosmos, and religious practices. According to one well-known classification associated with early 19th century folklorists and students of non-classical legends, including the brothers Jacob and Wilhelm Grimm (cf. H.J. Rose, *Handbook of Greek Mythology,* (1964), ch.1), these stories consist of three main types.

(1) Myths proper, i.e. pre-scientific and imaginative explanations of real or supposed phenomena which appeal to emotion rather than reason. As these phenomena are mostly natural, nature myths are preponderant. The stories are mainly concerned with gods, their birth, their relationship to one another, victories over monsters and rivals, love affairs, special powers, connections with shrines, or rituals. They are often aetiological in purpose, in that they attempt to provide explanations of phenomena which appear wonderful or puzzling. They are concerned with the causes of all manner of things from apparent movement of the heavenly bodies to the shape of a neighbouring hill or the origin of a local custom.

(2) Legends or sagas, i.e. accounts of heroes who were thought of as actually having lived in the distant past and as having taken part in quasi-historical events, such as battles and adventures, which were generally accepted as actually having happened. Thus the story of the Trojan War, whose origin tradition traced to Paris' abduction of Helen, is thought to reflect a concerted attempt by the Achaeans, a conquering feudal aristocracy, to seize the Black Sea trade at the beginning of the 12th century BC. It seems to have consisted in a blockade of the fort of Ilium, thus interrupting Trojan communication with neighbouring countries, and the issue seems to have been decided by the economic and military exhaustion of the Trojans which led to the subjugation of the cities allied with them and finally to the fall of Ilium itself. Thus the story is based on some kind of memory of the past and, with the exception of the part played by the gods (which really belongs to myth proper), the progress of the war is described in largely realistic terms. It is a human story unfolding in a human environment. With constant repetition through many generations such legends undergo all sorts of mutations – additions (mostly of imaginary and therefore picturesque material), omissions (mostly of real details), modifications, and rehandlings. Occasionally, the story may be completely fictional, but it will nevertheless be modelled upon real semi-historical narratives. On the other hand, there are instances of fragments of real history being preserved in legends of the peasantry over an extraordinary length of time.

(3) Folk tales told for popular entertainment, mostly stories of adventure dealing with natural or supernatural matters. Varieties include fairy tales, animal fables, and stories about witches, giants, ogres, and magical objects. Despite these supernatural elements, the main character is generally a human being, usually of humble origin, striving to achieve a human goal in spite of, or with the help of, such fantastic forces. The theme may also be a contest or trial, e.g. to defeat a monster or win a bride; or it may involve a more domestic challenge such as circumventing a malicious stepmother or jealous brothers or sisters. Many of these characteristically involve trickery or ingenuity or the use of magic. There may also be an element of wish fulfilment or the acquisition of a treasure or a great reward for apparently small but often highly moral actions, such as the solving of a riddle. A story, such as that of Cadmus, Perseus, Heracles, or the Argonauts, may contain elements from more than one of these types.

The ancient Greeks themselves had various attitudes to their myths. Some people no doubt accepted them as literally true and considered their narratives to be historical accounts. However, many thoughtful people must have found it difficult to accept them or their implications. Their reaction was broadly twofold: rationalization, which appears to have begun with Hecataeus of Miletus (550–480 BC); and allegorization, which probably began with Theagnes of Rhegium in the 6th century BC and, through its use by the Stoics, persisted until late antiquity and survives in the work of some early Christian writers and artists.

Myths performed a number of important functions in ancient Greek society in the various spheres in which they were employed. Turned into epic, they served to preserve and immortalize the famous deeds of men (*klea andron*). They provided education (often intertwined with entertainment) as examples or allegories. They gave pleasure and aroused feelings which, in some cases such as tragedy (if one follows the interpretation of *katharsis* as purgation) may have been considered therapeutic. Myths were also employed, especially in rhetoric, to explain the present in terms of the past, and to justify political or military decisions.

Greek mythology probably originated from the primitive forms of worship which existed in ancient Crete from about 3000 BC, and which were associated with animistic and magical beliefs. Over time such beliefs evolved into a body of legends involving natural objects, animals, and the anthropomorphic gods, and some of these legends found their way into the corpus of Greek myth. It may be observed that many of the principal Greek myths are connected with centres of Minoan and Mycenaean civilization. The legends of Perseus and Atreus are associated with Mycenae itself, while that of Oedipus is associated with Thebes, and that of Heracles with Thebes and Tiryns. It is therefore possible that these myths existed in some form in Mycenaean times.

Clay tablets from the time of the Mycenaean civilization (which reached its peak between 1400 BC and 1200 BC) provide earliest records of Greek mythology, and suggest that some of the main Greek gods and goddesses were known in the late Bronze Age. According to them, Poseidon was the principal god of the Mycenaeans, while Zeus held a less important place. The presence of the formulae "mother of the gods" and "Drimius, son of Zeus" suggests a divine genealogy. During the so-called Dark Age this mythology combined with that of the Dorians to form the mythology of Classical Greece.

The variety of factors that contributed to the formation of Greek myths and mythological personages resulted in the lack of unity, consistency, or coherence that pervades Greek mythology. The immense diversity stems partly from geographical considerations, since in widely differing regions there evolved different conceptions of the gods of the Greek world and varying rituals of propitiation. Moreover, the myths are often found in fragmentary form and in sources ranging in date from the 2nd millennium BC to beginning of the Christian era, and it is important to realize that the older sources do not necessarily preserve earlier or more authentic traditions. In many cases the myths and fragments belong to large mythological cycles current in various communities and often not known to us in their entirety. Moreover, the myths contain elements originating in a varied historical and cultural background. In particular, the Mediterranean peoples, who worshipped an earth goddess, were conquered by successive waves of Hellenes bringing with them some form of tribal sky god. Thus, while gods like Zeus represent mainly the Indo-European cultural element, Demeter,

Aphrodite, and Rhea probably represent Minoan-Mycenaean and Near Eastern elements. In fact, many deities, such as Demeter, Athene, and Zeus himself, combined in a single divinity both Mediterranean and Hellenic traits. Moreover, the myths have been subject to interpretation by poets and philosophers who have utilized many strands and varied traditions of the mythological cycles. The diversity of local legends may serve to explain the frequent sexual alliances of gods and heroes with their close relations, an idea repugnant to Greek custom. This may be the result of blending together of different legends representing a god and goddess (such as Zeus and Hera) either as husband and wife, or as brother and sister.

Greek myths are nevertheless relatively free of cloudy, grotesque, and horrible details such as are found in the legends of many other nations. Even their monsters are not particularly ugly or uncouth; nor is there much that is dreadful in their witches, ghosts, and demons.

Present knowledge of Greek myths rests principally on ancient Greek literature. The earliest surviving literary sources are the poems of Homer and Hesiod. The *Iliad* and the *Odyssey* focus on events surrounding the Trojan War, but involve the activities of the gods and refer to earlier legends such as the Theban cycle, the voyage of the Argo, and the exploits of Heracles. Hesiod narrates the birth of the cosmos, the succession of divine rulers, the ages of human existence, the origin of mankind's sufferings, and the source of sacrificial practices. Other sources of myths are the Homeric hymns, fragments of the cyclic poets, lyric poets (especially Pindar), the tragedians and comedians, Hellenistic poets and scholars, and writers under the Roman empire such as Plutarch and Pausanias. To these must be added various representations in the visual arts, among which temple friezes and vase paintings are of special importance.

Greek religion was not based on revelation and, with few exceptions (mostly associated with mysteries) did not involve spiritual teaching; and, although state officials in charge of religious matters are not unknown, there were no formal structures and no written codes embodied in a sacred book. There was, therefore, a great variety of beliefs and practices, and a resulting multitude of variations in the myths. The Greek myths embrace most of the themes commonly found in the mythologies of the world such as creation and origins (aetiological myths), birth of gods and other divine beings, death and the afterlife (eschatological myths), and the renewal and rebirth of the world.

Greek myths show certain characteristic features. They embody an anthropomorphic and non-fantastic view of the gods: the gods are depicted in human form and have human feelings. Strange and scandalous details, which have survived in locally established traditions, are usually suppressed in Homer and other archaic poets. The gods lived on Mount Olympus in Thessaly, in a society that ranked them in terms of authority and powers. They moved freely, however, and individual gods came to be associated with the three principal domains – the sky, the sea, and the underworld – while the earth was held in common. They were immortal, and controlled all aspects of nature. Human lives were totally dependent on their goodwill. Relations between men and gods were generally friendly; but the gods severely punished mortals whose behaviour was unacceptable to them. Excessive arrogance, ambition, or even extreme prosperity provoked divine wrath and punishment. Consequently, there emerged the idea of a dual motivation according to which human destiny came to be viewed as the outcome of joint action by men and gods. Hence the *Odyssey* attributes the destruction of both Odysseus' crew and Penelope's suitors to their own folly and the action of divine justice. Similarly, the Sophoclean Oedipus, while attributing his blinding to Apollo, nevertheless says that it was his own hand that did it (*Oedipus Tyrranus*, 1329–31]. Since the Greek gods were largely personifications of natural phenomena, Greek mythology emphasized human weakness in facing the awesome powers of nature.

Most, if not all, heroes of Greek legends were mortal. They were subject to birth, old age, and death. Nevertheless, they associated with the gods, and many of them claimed their descent from the gods. The majority of Greek heroes and heroines belong to one of two principal groups, namely those who lived before the Trojan War (such as Jason, Theseus, and Oedipus) and those who fought in that war (such as Hector, Achilles, and Odysseus). Some of the heroic tales, such as those of Helen and Achilles, appear to go back to Indo-European times, while others, such as that of the cattle-raiding Heracles, may go back even further. Another distinctive feature of Greek mythology is the prominence of initiatory myths. It has been pointed out that early accounts of pan-Hellenic expeditions contain many elements of male initiation, while legends of heroines reflect the final transition into womanhood.

As scholars such as Peter Walcot (1966) and Martin West (1971) have demonstrated, Greek mythology is also heavily indebted to the rich mythologies of Anatolia and Mesopotamia, probably through contacts during the Early Iron Age. In his *Theogony* Hesiod has incorporated some violent myths of Hurrian origin concerning, among other things, the cannibalism of the gods which, at a later date, evinced the protests of Pindar: "It is not for me to call one of the blessed gods a cannibal: this I avoid." The castration of Uranus by his son Cronus derives ultimately from the Hurrians through Hittite and Phoenician intermediaries; the division of the universe by lot between Zeus, Poseidon, and Hades (*Iliad*, 15. 187–93) derives from the Akkadian epic *Atrahasis*; and the figures of Oceanus and Tethys (*Iliad,* 14. 201) derive from Apsu and Tiamat in the Babylonian creation epic *Enuma Elish.* The last great wave of mythological invention was the result of Greek colonization of the Mediterranean and the Black Sea during the 8th and 7th centuries BC. Not only the *nostoi* but also the much older voyage of the Argonauts enabled newly founded colonies to relate themselves to the pan-Hellenic past as reflected in these myths and legends. Dynasties and heroic feats were among the more favoured themes of Archaic legend; but with the evolution of a more organized society, family relations received greater attention. Stress within the family leads to lies, betrayal, counter-seduction, and other forms of inhuman revenge – situations which Aristotle advised the poet to seize upon – but occasionally the family acts together to repel stresses from outside. The implicit drama of family stress is not confined to semi-realistic legends such as those of the houses of Labdacus and Atreus, but is also exemplified in the myths of the gods. Moreover, Athenian tragedy, in particular, concentrated more on the role of the individual in relation to the city-state and the value of democratic institutions. A large number of the stories belong

to the category of aetiological myths, i.e. they originated as explanations of the birth or function of natural phenomena or religious rituals. In the latter case, if often happens that the myth survives in a detached form even after the ritual has disappeared. Many such myths are recorded by Pausanias (2nd century AD). Closely related are the myths of metamorphoses which, though found as early as Homer (e.g. Niobe and Proteus), came into their own in the Hellenistic age. The Hellenistic versions are aetiological in that they explain a present creature or landmark, though they lack the moral symbolism and the correspondence of animal and human traits characteristic of Ovid's narrative.

The commonest themes of Greek myth emphasize such preoccupations as contests and quests, particularly involving monsters; the relations between men and gods, whether of love, protection, or oppression; and the already mentioned stresses within the family, leading to acts of vengeance and displacement. Other themes emphasize fertility (though it did not find in Greece many different forms of mythical, as distinct from ritual, expression) and the displacement of elders. Eschatological myths include narratives of the imaginary world of the dead: how gods or defunct mortals pass beneath the earth, what they see on their way, the geography of the underworld and the aspect of its rulers and their subjects, the sufferings caused to the dead by neglect of their funerary rituals on earth, and so on. The developed and detailed eschatology is reflected not only in Near Eastern-type stories of disappearing gods, but also in the theme of heroic *katabasis,* or descent into Hades, e.g. that experienced by Heracles, Theseus, Orpheus, and Odysseus. The so-called Orphic tablets of the late 4th century BC instruct the dead about the topography of Hades, the springs of remembering and forgetting, and what the soul must say to prove its purity. Similar Orphic beliefs are also attested by Plato. Herodotus, probably rightly, traces such eschatological myths and rites to Egypt, but Mesopotamian influence cannot be ruled out (cf. G. S. Kirk, 1970, pp. 260–61).

Although the collection and interpretation of myths as a serious discipline did not begin until the latter part of the 18th century, ancient Greeks were not without thinkers and writers who reflected critically on their myths and expounded them. The first Greek physicist, Thales of Miletus (6th century BC), is represented as adopting a critical attitude towards the myths. By maintaining that the earth floats on water and that things come from water and go back to water, he attempted to correct, with the help of foreign myth known to him, what he saw as defects in the mythical cosmology of the Greeks. Criticism of the myths thus constituted a search for a rational understanding and control of the world. Myths lend themselves to change and adaptation to altered historical circumstances, and in ancient Greece the process continued down to the time when the claims of truth had to satisfy the new requirements of an emerging rationalism. Xenophanes attacked the anthropomorphic depiction of the gods in the myths, and this attack took on a moral dimension with him as well as with Pindar, Euripides, and Plato, on the grounds that the gods were depicted as immoral, adulterous, vengeful, and generally inferior to human beings. Allegorical interpretations (both physical and moral/psychological) were basically reactions to these attacks.

Herodotus (2. 53) believed that many Greek rituals were inherited from the Egyptians, and that the systematization of the Greek pantheon was due to Homer and Hesiod, who gave the deities their titles and distinguished their several provinces and special powers. Before that, the Pelasgians, on all occasions of sacrifice, called upon "the gods", but gave neither title nor name to any of them. Thus, according to Herodotus, and in the words of J. Harrison the mythology (or theology) of the Greeks "was not in the main the simple outcome of popular faith; still less was it a compilation due to a priesthood; it was the work of the poets". Prodicus of Ceos taught that the gods were personifications of natural phenomena. Plato employed myths and mythical modes to provide an insight into the deeper truths of philosophy not accessible to dialectical reasoning (cf. especially the *Symposium*). Although Aristotle is known to have been critical of the myths as fanciful and failing to embody truth about human life and the world, he realized their value in producing the tragic effect and, in his *Poetics*, advised would-be poets to keep as far as possible to the traditional stories. In the 4th century BC the mythographer Euhemerus in his *Sacred History* gave expression to the widely accepted belief of his time that myths were nothing other than distorted history, and that the gods were in effect kings and heroes who had been glorified over time and were worshipped for their deeds. Thus Zeus was an ancient king of Crete who rebelled against his father Cronus, the former king, and overthrew him. Biographies of other gods were similarly provided. Against this it has been argued that, to make a dead man into a god, one must already believe in some sort of gods, so that this theory cannot serve as an explanation of the origin of either religion or mythology.

During the Hellenistic period Greek beliefs were gradually modified under the influence of new philosophies (such as Stoicism) and the influence of neighbouring civilizations, but the myths recorded and adapted by Callimachus and his contemporaries were not directed at the general public (as were those of the Classical Greek poets), but at a small circle of connoisseurs. The Hellenistic and early imperial period saw a number of collections of myths compiled by scholars in order to elucidate allusions in the Classical authors. Most significant in this respect was the collection of mythological scholia on Homer which circulated as a separate book at least during the first five centuries of the Christian era. There were also collections which concentrated on a single theme, such as the book of star myths compiled by Eratosthenes, and the famous *Bibliotheca* ascribed to Apollodorus which organized the myths according to families. It is chiefly to collections such as these that we owe our knowledge of the lesser-known Greek myths. With the coming of Christianity, the gods of antiquity came to be interpreted either euhemeristically or as inferior demons, while the myths themselves came to be rejected as untrue or were interpreted allegorically as moral or exemplary stories – an approach which persisted until the Renaissance. A striking example is the 3rd-century fresco from the Catacombs of Domitilla in which the risen Christ is represented as Orpheus returned from Hades. Appropriated thus by Rome, both pagan and Christian, Greek mythology has been repeatedly represented through the ages in the literature, painting, sculpture, drama, dance, and music of the west; and its impact on

certain other cultures (e.g. Hindu and Buddhist legends) has now been established, even though the theory of Greece borrowing from India still has its adherents also.

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See also **Gods and Goddesses; Heroes and Heroines**

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N

NAUCRATIS

City in Egypt

Naucratis, on the east bank of the Canopic branch of the Nile, 84 km southeast of Alexandria, was a Greek city in Egypt. It was the birthplace of Athenaeus, and Sappho's brother Charaxas visited the city on business.

Naucratis has been identified with the mounds of Kom Ga'if. Excavations of the site were first carried out in 1884–86 by W.M.F. Petrie and E.A. Gardner, followed by D.G. Hogarth in 1899 and 1903. Since 1977 an excavation and survey by an American team led by W.E. Coulson have been under way. Half the site was destroyed by local people in the 19th century and a lake now covers the area of the old excavations. Modern excavations thus focus on the outskirts of the site and its surrounding territory.

Although both Herodotus (2. 178–9) and Strabo (17. 1. 18) provide lengthy information on Naucratis, many questions relating to the city remain unanswered and subject to dispute. It was initially established as a trading settlement (*emporion*) in about 650 BC, during the reign of the pharaoh Psammetichus I (664–610 BC) and under pharaonic control. Under Amasis (570–526 BC) the Hellenion was built by Ionians from Chios, Teos, Phocaea, and Clazomenae, and by Dorians from Rhodes, Cnidus, Halicarnassus, Phaselis, and Aeolian Mytilene. Aegina, Samos, and Miletus had erected their own temples dedicated to Zeus, Hera, and Apollo (Herodotus, 2. 178–9).

The earliest Greek pottery at the site, about 21 known examples, dates from the last quarter of the 7th century BC and belongs to the transitional and early Corinthian period. There are substantial quantities of middle Corinthian and early Attic black-figure ware, dating from the end of the 7th/early 6th century BC onwards, which probably reflect the extensive scale of Greek activity in Naucratis from the end of the 7th century BC. Nearly all archaic pottery found there accords with information given by Herodotus on the joint establishment of Naucratis by a number of Greek cities: there are ceramics of Rhodian type; Chian and Samian pottery; *fikellura* of Rhodian, Samian, or Milesian production; Clazomenian, Spartan, Corinthian, and Athenian vases; and Aeolian (Lesbian) plain pale grey *bucchero.*

Architectural remains are in very bad condition. Dedicatory inscriptions and offerings to temples help to identify to which gods or goddesses temples were erected. The temple of Aphrodite, not mentioned by Herodotus, lies in the southern part of the town. Temples to Hera and Apollo stand next to one another, and a small shrine to the Dioscuri (again not mentioned by Herodotus) was excavated in the northern part of the site. In this area of the city a large sanctuary was discovered. Inscriptions on vases unearthed there mention several deities, sometimes just "the gods of the Greeks", and these dedications give grounds for identifying this sanctuary as the Hellenion mentioned by Herodotus, the joint foundation of several eastern Greek states. Archaeological material from these temples shows that these cults date back to the early days of the settlement, and the temples were rebuilt or replaced several times in different periods.

East of the temple of Aphrodite was a small factory that produced faience scarab seals. It was active mainly in the first half of the 6th century BC. There were also local workshops producing Greek-style pottery (identified by style and technique) for local use as votives. Faience scarabs and figure vases were well known throughout the Greek world. In the 6th and 5th centuries BC there are isolated instances of Greek-manufactured objects directed to specific sites in Egypt. Thus, the inhabitants of Naucratis, not a large settlement, supported themselves by trade and craft work. In the literature, Naucratis is often compared with such commercial outposts of the British empire as Hong Kong or Shanghai.

The exact status of Naucratis is disputed. According to Herodotus and some modern scholars, the settlement was divided into two parts: a polis, inhabited by permanent settlers, and an *emporion* (trading settlement) peopled by Hellenion (visitors). It is possible that when Naucratis was under Persian rule in the 5th–4th centuries BC it was a polis. What little evidence exists (decrees and a tombstone with the ethnic of settlement as part of a personal name) is not very clear. By the Ptolemaic period, immediately after Alexander's conquest of Egypt, Naucratis did have the status of an autonomous polis. It had its own laws (including a ban on intermarriage), citizenship, and coinage. Graeco-Macedonian rulers recognized the

site as a centre of Hellenic culture. With the Macedonian conquest the separate sanctuary area (the northern part of the settlement) lost its importance and was combined with the rest of the city (the southern part of the settlement). The settlement was reformed and adopted the Milesian calendar and laws.

In the Roman period Naucratis retained its Greek constitution; citizens had no right of intermarriage with Egyptians. It had a *boule* (council) and held annual public games. It remained a trade and craft centre throughout the Ptolemaic and Roman periods.

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See also **Egypt**

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NAUPACTUS

Port on the gulf of Corinth

Naupactus (modern Nafpaktos) is a strategically located port on the northern coast of the gulf of Corinth, just east of its narrowest part. Originally called Locris (Apollodorus, 2. 8. 2–3), it became known as Naupactus ("ship-construction" or "shipyards") after the Heraclid Temenus built a fleet there (see also Pausanias, 10. 38. 10; Polyaenus, *Stratagems*, 1. 9; Suda s.v. *Naupaktos*). According to Apollodorus, this fleet was later destroyed at Naupactus when one of the Heraclids, Hippotes, killed a prophet whom he mistook for a Peloponnesian. The killing of this prophet apparently angered the gods, who brought doom upon the Heraclid forces and their fleet.

Other myths or legends associated with Naupactus are not extensive. Aeschylus (*Suppliant Women*, 260–70) relates that Apollo's son Apis, a prophet and healer, came from Naupactus and rid the Argolid of monsters that threatened humans. One tradition also suggests that Ktimenos and Antiphos, Ganyktor's sons, murdered the poet Hesiod at Naupactus (Pausanias, 9. 31. 6; Plutarch, *De Sollertia Animalium*, 969e), and that Hesiod was buried there (Pausanias, 9. 38. 3). Numerous references exist to an epic poem called the *Naupaktia*, which according to Pausanias (2. 3. 9) described Jason's life on Corfu after his expulsion from Iolkos. The authorship of the poem was uncertain; though Pausanias (10. 38. 10) reports that by tradition the poem was usually attributed to a Milesian, he believed that the author was Carcinus of Naupactus.

The strategic importance of Naupactus emerges in the 5th century BC. In the early 450s BC the Athenians, under the command of Tolmides, captured Naupactus from the Ozolian Locrians, who had apparently colonized Naupactus during the first quarter of the 5th century BC. After capturing Naupactus (probably by the mid-450s BC), the Athenians colonized it with some Messenians, who had rebelled against the Spartans, were besieged by them on Mount Ithome, and eventually surrendered. The Spartans, however, at the behest of the Delphic oracle, allowed the Messenians to leave the Peloponnese, after which they were received by the Athenians, who colonized Naupactus with Messenians because of their mutual enmity towards the Spartans. Having an ally at Naupactus would allow the Athenians to put both military and economic pressure on the Spartans' ally, Corinth. With Athens' own port in the east and Naupactus in the west, the Athenians could dominate the Greek seas. (See Thucydides, 1. 103. 1–3, 2. 9. 4; Isocrates, 12. 94 (*Panathenaicus*); Diodorus, 11. 84.6–7, 12. 44.3, 12. 47. 1; Pausanias, 4. 24. 7, 31. 7, 10. 38. 10).

Messenian occupation of Naupactus continued for the next few decades, and when the Peloponnesian War broke out in 431 BC, Messenian hatred of the Spartans and their friendship with Athens allowed the Athenians to use Naupactus as a base of operations against the Spartans and their allies. With Naupactus at their disposal, the Athenian naval presence in the gulf of Corinth could counter the Spartans' allies Corinth to the east, as well as the Spartan-controlled port of Patras. Moreover, thanks to superior naval forces, the Athenians held sway in the gulf of Corinth during the Peloponnesian War. Phormio's victory over the Peloponnesians in 429 BC, despite being outnumbered in ships more than two to one, is still admired for its tactical brilliance (see Thucydides, 2. 69.1, 2. 83; Diodorus, 12. 47. 1–48. 1; Pausanias, 4. 26. 1; Polyaenus, *Stratagems*, 3. 4). By the century's end, though, the Spartans had crushed the Athenians, and between 403 BC and 397 BC they expelled the Messenians from Naupactus (see Xenophon, *Hellenica*, 3. 2. 21–3. 1; Diodorus, 14. 34. 2; Pausanias, 4. 26. 2; 10. 38. 10).

After the expulsion of the Messenians, Naupactus came under Locrian control. Between 395 BC and 389 BC the Locrians were again supplanted by the Achaeans, who held Naupactus until 366 BC when Epaminondas drove them out. After this, Naupactus again became a Locrian possession. How long the Locrians retained Naupactus is not clear, but Demosthenes (9. 34) indicates that in 342 BC the Achaeans held the port and this continued until 338 BC when Philip II of Macedonia seized it and handed it over to the Aetolians.

Naupactus resurfaces in 217 BC as the site of a conference between Philip V of Macedonia and the Aetolians and Achaeans, a meeting that resulted in a peace accord between the two sides (Polybius, 5. 102–103). Livy reports that Roman commanders made use of the port in 211 BC and 208 BC, and that the Aetolians used it as a meeting place in 200 BC, 193 BC, and 191 BC. The Romans besieged Naupactus in 191 BC when the Aetolians revolted against the Roman cause. After two months, though, the siege was ended through negotiations (Livy, 36. 35), but the enmity between the Aetolians and

Romans ultimately became irrelevant since Greece became a Roman province in 146 BC.

During the later Roman republic and empire, little mention of Naupactus exists other than the Caesarian Calvisius' expulsion of a Pompeian garrison there in 48 BC. In the 2nd century AD Pausanias (10. 38. 6–7) describes a few shrines and sanctuaries dedicated to Poseidon, Artemis, Aphrodite, and Asclepius, the last of which was in ruins in Pausanias' day and of which a few remains are extant.

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NAUPLIA

City in the Peloponnese

Nauplia (modern Navplion, medieval Anapli or Napoli di Romania), an important and picturesque harbour town of about 12,000 people, is situated on the Argolic Gulf in the Argolid region of the northeast Peloponnese. It lies beside the sea at the base of two summits: Akronavplia (or the Its Kale), a relatively low but precipitous promontory of *c.*84m, and the Palamidi, a rocky peak of some 215m on which stands an imposing fortress. The town is now best known as a cultural and tourist centre, but it has had a long and illustrious, if sometimes very troubled, history.

Tradition associates Nauplia both with the mythical Nauplius, son of Poseidon, and with Nauplius the Argonaut who avenged himself on the Greek participants in the Trojan War after they betrayed and killed his son, Palamedes. Settlement at the site may be traced as far back as the palaeolithic period, with remains from that date and from neolithic times found on Akronavplia. During the Bronze Age the main centre of habitation seems to have been the Pronoia area to the east of the old town; Mycenaean chamber tombs have also been found nearby. The settlement continued to exist in the Dark Age and a cemetery of the Geometric period has been excavated. Traces of occupation continue until the Hellenistic period, but evidence is rather limited. Indeed, historical accounts mention that Nauplia was destroyed by its neighbours, the Argives, during the reign of king Damocratidas (no later than *c.*600 BC), after which the town became the harbour of Argos (as it may have been in Mycenaean times). By the Roman period the site was deserted since Pausanias, who visited it in the 2nd century AD, reports only a sanctuary of Poseidon there; even the fortress walls were in ruins by his day.

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NAVY

Greece has a mainland coastline of about 16,600 km together with over 4000 islands, islets, and rocks. It occupies an important geostrategic position in the eastern Mediterranean and merchant shipping has become a significant element of the national economy. Not surprisingly, Greece has a long naval history and maritime tradition, and it is to its naval fighting abilities "that Greece owes its existence – an existence whose character was formulated and strengthened by the sea" (Alexandris, 1987, p. 92).

The development and employment of maritime power was a vital characteristic of Greece's ancient history. In the 2nd millennium BC the Minoan empire in Crete emerged as the first organized naval power in the world. Later, during the 5th century BC, the success of Athens and the "golden age" of Pericles depended on the systematic development of sea power. Though the first Persian invasion of Greece by Darius in 490 BC was defeated by the Athenian army at Marathon, the Athenian politician Themistocles was quick to recognize that, in any future attack, land forces alone would not be enough in the face of the vast numerical superiority of the Persian army. Using new-found revenues from the state silver mines at Laurium, the Athenians decided to build a large fleet. The principal fighting element of the new fleet, and a significant Athenian technological innovation, was the trireme – the fastest warship of its time, which could ram and sink enemy ships without exposing itself to the risk of grappling and boarding its opponents.

Themistocles' rationale for developing a naval capability was subsequently vindicated. During 480 BC the Persians, under the generalship of Xerxes, attacked northern Greece with land forces and a fleet of over 500 ships. The invading army destroyed an outnumbered Spartan force at Thermopylae and then engaged in an indecisive naval battle with a Greek fleet off Artemisium. At the subsequent Battle of Salamis, the Persian and Greek fleets were evenly matched in numerical terms, but the edge provided, *inter alia,* by the triremes enabled the Greeks to win a decisive victory. The Battle of Salamis conclusively demonstrated the ability of Athens to wage war from the sea and it was an essential precursor to its wealth and dominion.

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See also **Ships and Shipping**

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NAXOS

Island in the Cyclades

At 428 sq km in area, Naxos is the largest island of the Cyclades. It is also the most fertile, being provided with a large coastal plain to the southwest. The interior of the island is mountainous, the highest peak being Mount Zas, which takes its name from the father of the gods; an inscription on the mountain reads "Mountain of Zeus Milesios". The cave of Zas on this mountain is said to be the place where Zeus and Dionysus were reared, and Naxos is said to have been called both "Zia" and "Dionysia" in ancient times. Dionysus is especially associated with Naxos, where he was said to have taken Ariadne from Theseus. Fittingly, Naxos was known for its viticulture in ancient times and continues to produce wine to the present day. Other produce, such as grain, figs, olives, and citrus, is also abundant and it is not surprising that Naxos has been renowned for its prosperity.

Naxos is also rich in marble, as well as the emery used to work it. It is the sole source of emery in the Cyclades, and its white marble is plentiful but coarser than Parian marble. Naxian sculptors are first in evidence in the early Cycladic period, when they produced fine vessels and the stylized figures with triangular heads that are unique to the Cycladic culture. Many have been found in the area of Grotta, near the site of modern Naxos city, which appears to have been inhabited almost continuously over the past 5000 years. The later Bronze Age was less productive, but at the beginning of the Archaic period in the late 7th century BC Naxos was at the forefront of Greek marble sculpture production. Indeed, it has as good a claim as anywhere in Greece to be the birthplace of the Archaic style of monumental statuary. The nearby island of Delos received many statues from Naxos, including the female figure dedicated by Nikandre, which is the earliest surviving complete marble statue of monumental size, the Naxian sphinx, and a colossal *kouros*, which was famous in ancient times but is now lost. *Kouroi* were youthful male figures, pictured naked with one foot advanced, and often associated with Apollo. They are the most abundant Naxian work, including several unfinished sculptures remaining in Naxian quarries. A 10m-long unfinished colossus is locally believed to represent Apollo, but has a wedge left by the chin that could represent a beard, in which case it would be disqualified as a *kouros*. The entire area of the quarry is, in fact, associated with Apollo, including the nearby village of Apollonia. A large marble temple, variously attributed to Apollo and Dionysus, was erected on a small island outside Naxos city. It is said to have been commissioned by the tyrant Lygdamis. Today only a pair of doorposts and a lintel remain as a landmark. By the time that sculpture passed into the severe Classical style in the late 6th century BC, Naxian marble had faded from prominence. The reasons for this decline, and for the unfinished statues, are unknown.

Lygdamis had risen to power in Naxos in the middle of the 6th century BC, and carved himself an empire in the surrounding islands with the help of Pisistratus, tyrant of Athens, to whom he had given aid at the time of his exile and restoration. By 528 BC the Naxian tyranny had weakened, and the deposed oligarchs were recalled. Interestingly, among the few records of these events, there is mention of unfinished statues to be returned to them. Twelve years later, according to Diodorus, the Naxians controlled a thalassocracy, which lasted a decade. Coinage was becoming widespread in the Aegean at this time, and Naxian influence on the silver trade may have led to the story that coinage was invented on Naxos. In 499 BC the island was conquered by the Persians. The Naxians helped to expel the Persians in the last stages of the war, but did not fully regain their former power. They joined the Delian League, then later resigned from it. Athenian influence was succeeded by Spartan after the Peloponnesian War, although Naxos was the site of a major Athenian victory in 376 BC.

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See also **Cyclades**

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NECROMANCY

Belief in necromancy, the employment of the spirits of the dead in divinatory or magical techniques, is attested from almost all periods of the Greek tradition; while treated with disapproval or scepticism by some, and at times subject to harsh legal sanctions,

its existence and validity appear, nevertheless, to have been widely accepted on a popular level. It forms only one part of a much wider range of belief and practice concerning the dead within this tradition, however, and also contains elements drawn over time from neighbouring cultures, such as Judaism.

Although the idea of necromancy almost certainly goes back to prehistoric times, the first evidence for it in the Greek literary tradition is found in the *Odyssey* of Homer (10. 501–11) where an elaborate sacrificial ritual for summoning the spirits of the dead is described by Circe and then carried out by Odysseus and his men. A number of references to it in writings of the Classical period suggest a general attitude of intellectual scepticism but popular belief (see, for example, Aeschylus' *Persae*, 609–842, Aristophanes' *Birds*, 1553ff., and Plato's *Laws*, 10. 909b; cf. 11. 933a–e). Herodotus (5. 92) recounts how the Corinthian tyrant Periander sought the help of the oracle of the dead on the river Acheron in Thesprotia and, much later, Plutarch (*Consolatio ad Apollonium*, 109b–d) also refers to such a cult (*psychomanteion*); in the latter case, at least, the ritual concluded in an incubation, with the spirits appearing and revealing in a dream vision the information being sought. Evidence that necromancy continued to find a place in the Greek tradition during the Roman imperial period may also be found, for example, in such works as Lucian's satirical *Menippus* (or *Nekyomanteia*), written in the 2nd century AD, and Heliodorus' *Aethiopica* (6. 14–15), written in the 3rd; both describe necromantic practices in some detail and at least provide evidence of popular views on the subject, if not necessarily of their own belief in its efficacy or acceptability. The information they give is paralleled by contemporary treatments of the subject in a number of Latin authors, while the Romans legislated severely against necromancy and various references show that the allegation of involvement with it could form a useful and dangerous weapon for attacking political or other opponents.

Apart from information to be obtained from literature, there is also a wealth of material evidence for belief in necromancy from the older Greek tradition, particularly in the form of inscribed curse tablets. These tablets, together with bound figurines and similar objects that belong to related practices, were being placed in graves and at other places where the spirits of the dead might be thought to lurk from at least the 5th century BC, but their use appears to have been most common in the Hellenistic era and does not fade away until the advent of Christianity. Material evidence of ancient necromantic practice also comes from archaeological excavations such as those near Ephyre in Epirus which have uncovered the remains of an elaborate oracle of the dead, evidently conducted in an underground chamber beneath a sanctuary complex; there are many indications (see, for example, the episode recounted by Herodotus) that this area around the river Acheron was that most widely associated in Greek antiquity with necromantic rituals, but it seems that similar oracles existed from time to time at other locations notorious as entrances to the underworld. The oracle of Ephyre, which evidently developed from the 4th century to peak in the 3rd and 2nd centuries BC, appears to demonstrate that necromancy was not confined to individual belief and practice but also played a role in highly organized and officially sanctioned oracular cults, although some have challenged this view.

Much of the information on necromancy provided by the various literary sources, as well as that derived from the curse tablets, tallies closely with technical material on the subject to be found in surviving manuals of magic. Thus many passages in the Greek magical papyri (2nd century BC to 5th century AD) reveal that the spirits, or perhaps "ghosts" of the dead (the usual term is *nekydaimon*), were believed to act as intermediaries between the magician and the chthonic powers; especially useful were those thought to be trapped in some way between the worlds of the living and the dead, those, for example, who had suffered an untimely or violent death (the *aoroi* or *biaiothanatoi*). Made vulnerable and weak by their marginal status, these souls still possessed the power to bridge the divide between the different levels of existence and so were ideal instruments of the magician in effectuating the aims of a particular procedure, whether this was a curse, a love spell, or a divination. Furthermore, because these spirits fell within the sphere of control normally ascribed to the major deities of the underworld and to others, such as Hecate or Hermes Psychopompus, these greater powers also came to be associated with and invoked in such magical procedures as attempts were made to ensure their compliance. At other times in these sources, however, the notion of the spirits of the dead as mere intermediaries (and often as more or less witless beings) is replaced by one that treats them as malevolent forces in their own right, quite capable of vindictively pursuing the victims of the magician who is manipulating them and, indeed, of turning on their employer if due precautions are not taken. In both cases, however, it is clear that the spirits of the dead were thought to be of crucial importance in empowering many techniques of ancient Greek magic and this undoubtedly explains why, at least in popular belief, magicians were associated with such things as the theft of corpses, ritual murder, and infanticide.

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See also **Divination; Magic; Oracles**

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NEOPLATONISM

"Neoplatonism" is a modern label for the Greek philosophy of the late ancient, early Byzantine period (late 3rd to 7th century AD). The label is inadequate. First, "Neoplatonism" amounted to Greek philosophy in general: it incorporated Aristotelian, Stoic, and Pythagorean tenets (Epicureanism was rejected) and had no other philosophical competitors. Second, there were many diverse, often rival, brands. Third, "Neoplatonism" is very different from the standard Plato, yet shows close links with some renditions of the late Plato and the early Academy. The Neoplatonists fostered allegiance to the Classical past (Neoplatonists wrote most of the commentaries on Aristotle and Plato), but simultaneously promoted a fresh, dynamic philosophy.

Neoplatonism was consolidated and brought into mainstream academic teaching by the Athenian school, and especially Proclus. Its principal founders were Plotinus, Porphyry, and Iamblichus.

The Neoplatonists were primarily philosophers with their own ideas about truth and reality. They reasoned that these come in degrees or levels, each appropriate to the means of knowledge in use. Sense-perception addresses the physical mode of things, reason the conceptual, abstract, or mathematical mode of things, and direct intellectual apprehension the essences, principles, and Forms of true reality. However, all knowledge and being derive from an ultimate principle, the "One", which by definition is beyond the system.

In descending order, the main metaphysical levels were, the One, Being/Intellect (*ousia/nous*), and Psyche (as self-organizing life/soul/mind). Body and Matter in themselves were considered passive. More detailed orderings made explicit the functions of the One (transcendent – causal, determinative – unlimited), and the structure of Being/Intellect as essence, potency (*dynamis*), and overt actuality (*energeia*).

Neoplatonism is neither just idealism nor realism. Objects are contained in consciousness, and differ according to the mode of awareness and cognition. At the level of pure intellection, being and thought coincide. However, phenomena and reliable conceptions depend on transpersonal realities, which are self-sufficient.

Psyche in Greek philosophy meant the self-propelled (*autokineton*) life that defines living beings. Human psyche consists of a rational (mind) and a non-rational life (self-movement, senses, instincts). With the psyche man can compare sense-perceptions and thoughts, mentally weigh evidence, and arrive at conclusions and understanding (*logos*). Each psyche, however, has only a "particular" perspective. Because of this combination of self-motivation and limited vision, which is its individuality, it "dares" to leave its level, and invariably "fall" into body. Yet, psyche is an extension of atemporal, unlimited, objective principles. To these it yearns to "ascend" by the Neoplatonic routes of love, contemplation, and faith.

From their readings the late Greek philosophers concluded that Plato was nearest to a complete account, provided his writings were interpreted correctly. Aristotle, Plato's rival, was valid for the domain of sense-experience, ordinary language, and basic logic. Neoplatonic education, as taught at Athens and Alexandria, thus started with Aristotle and progressed to Plato; studying could last six years. Learning stimulates the soul to reflect on its self, and through it on the levels of reality that substantiate it. Salvation comes with the deepening of knowledge, for philosophy aids the soul to recover its full integrity. This is preserved by a unity, which is of divine origin.

Accordingly, Neoplatonists studied an encyclopaedic range of subjects and philosophies, including literary works and criticism, psychology, politics, Pythagoreanism, Stoicism, and Hedonism. First they trained in ethics and logic, i.e. the basics of good living and sound reasoning. Then they learnt physics and mathematics (geometry, arithmetic, astronomy, and harmonics) as the representations of reality. Thinking about being, existence, properties, and causes, and about concepts, knowledge, and truth brought the students nearer to the core concerns. In the final step of "analysis", they encountered the ultimate foundation of metaphysics, epistemology, and ethics: the unconditioned, ineffable unity, whose traditional appellation is God.

Plotinus (3rd century AD) was born in Hellenized Egypt, and first sought philosophy with the scholastic teachers of Alexandria. Having found them disappointing, he turned to an Ammonius Saccas, who propounded the agreement of Plato with Aristotle. Among his audience were Longinus and the Christian Origen. After 11 years, and a short adventure in the East, Plotinus settled in Rome, where he attracted a large circle of followers, including senators.

For Plotinus, inward contemplation of human nature takes the philosopher on a journey of discovery. Man's inner capacities reveal universal realities, and exemplify deep philosophical issues. The relation of body with psyche, for example, shows the difficulty of referencing immaterial existence by the normal material-bound standards. He regarded Plato correct, and Aristotle selectively wrong, especially on the categories of being. Yet, Plotinus' doctrines were not dogmas but the results of lengthy debates with his followers. He was conscious of his unorthodox Platonism: that the Forms are identical with the contents of divine Intellect (interpretation traceable to the 2nd-century Aristotelian professor Alexander of Aphrodisias), and that an aspect of human psyche remains undescended in body. Later Neoplatonists accepted a modified articulation of the former, but rejected the latter.

Plotinus' writings were edited and publicized by Porphyry. Although Porphyry records their chronological order, he arranged them in six thematic groups of nine, henceforth known as the *Enneads*. In this they conform to an ascending scale from ethics and physics, to psyche, *nous*, and finally on to the divine One. This is the hierarchy of virtue, being, and knowledge, which will typify later Neoplatonism and its curriculum.

Porphyry (3rd to early 4th century AD) was born in Hellenized Phoenicia of Syrian parents, and first studied at Athens with the prominent scholastic Longinus. From him he inherited breadth of learning and source material, organized, critical thinking, and clear, concise expression. However, he became more attracted to Plotinus' philosophy. After five years, he disagreed with Plotinus, left him, and pursued his "harmonization" of Aristotle's logic and metaphysics with Plato. Nevertheless, Plotinus entrusted him with the publication of his doctrines. Porphyry disseminated widely their new philosophy with his numerous writings (including a key work on vegetarianism and ecological philosophy) and high scholarly reputation.

For Porphyry, Aristotle is true, within the limits of sense–experience, physical reference, logic, and semantics. Plato addresses the intelligible but intangible reality. In ethics and religion, Porphyry promoted the ideal of the simple living philosopher-priest. He was the first to write on the "Chaldaean Oracles", proverbs written in Greek but of uncertain origin, that later Neoplatonists used as revelatory support for their ideas; he was also the first to elevate faith, love, and truth alike to the divine virtues. Porphyry saw reason as the surest path to God, and rejected Christianity and Gnosticism as irrational or fraudulent. Indeed, the "harmonization" was motivated by his concern to defend Hellenic philosophy.

In the meantime, Plotinus' chief spokesman, Amelius, had also left him and settled in Apamea, Syria. Amelius bravely postulated that the Platonic Forms must be infinite (subsequent Neoplatonists rejected it), and, unlike Porphyry, believed that ritual practices enable contact with divinity. Further, he introduced a tripartite distinction in *nous*. His first doctrine influenced Theodore of Asine, a student of Iamblichus, but was rejected by other Neoplatonists. The last two show influence from Numenius, a Neopythagorean who flourished at Apamea in the 2nd century AD. He had introduced ideas later typical of Neoplatonism (Plotinus was once accused of plagiarizing Numenius): the Forms as contents of *nous*, threefold divisions, the Pythagorean reading of Plato, theurgy, and the value of revelatory oracles.

The Syrian Iamblichus (4th century) was at first an acolyte of Porphyry, but disagreed over the role of theurgy. After a short stay at Caesarea, he established a school at Apamea, which seems to have offered both philosophy and conventional rhetorical education. Iamblichus' school proved exceptionally popular, only to be surpassed by that of his student Aedesius the Cappadocian, at Pergamum. Their students spread and influenced the Byzantine empire from its very beginning. Iamblichus' student Sopater of Apamea advised the emperor Constantine the Great, and presided over the consecration of Constantinople's foundation in 330. Aedesius, through Maximus of Ephesus, converted the emperor Julian (361–3) from Christianity to a universalist "Hellenism".

Iamblichus took Porphyry's "harmonization" of Aristotle with Plato further into ontology and psychology, and added Neopythagorean number metaphysics. He sought to mathematize all areas of philosophy and religion, because mathematics made possible their scientific study. He analysed the Neoplatonic levels into transcendent and immanent aspects, and, for the first time, he saw time not as a by-product of psychological activity but as substantial reality. He concluded, against Porphyry, that divinity cannot be reached by reason but by an appropriate act of transcendence: supra-rational theurgy. Against Plotinus, he pointed out that embodied souls do not access higher planes, but are fully immanent in matter. Nevertheless, they contain a divine spark which is the source of salvation both of individual souls and of matter.

The Iamblichean version incorporated most of Porphyry and Plotinus, but rejected Theodore of Asine. In a modified form it was eventually accepted by the chief mainstream schools of Athens and Alexandria. Through them the Neoplatonic educational philosophy became the curriculum of Byzantine higher education until the 15th century.

LUCAS SIORVANES

See also **Academy; Philosophy; Plato**

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NERO AD 37–68

Roman emperor

Nero (54–68) had a more complex relationship with Greece than any Roman emperor before or after him. Although other men, such as the Egyptian Amasis (Herodotus, 2. 178) and the Roman general Antony (Plutarch, *Antony*, 23), had been called philhellenes, Nero as Roman emperor had unprecedented power to express his love for Greece on a vast scale. Nero's philhellenism can be divided into two categories: first, there is his own personal pursuit of Greek culture, music, and literature; secondly, there is his adoption of a foreign policy that was beneficial to Greece as a country.

Early signs of Nero's love of Hellenic culture are clear from his enthusiasm for the Greek language: under Claudius, he gave speeches in the senate in Greek on behalf of the Rhodians and the Trojans. Some critics have suggested that Nero did not write these speeches himself (cf. Tacitus, *Annals*, 13. 3. 3: Nero was "the first ruler to need borrowed eloquence"). That may be so, but his public demonstration of competence in the Greek language certainly contrasts with previous emperors, such as Tiberius, who could speak Greek fluently, but only ever did so in private. Another early sign of his philhellenism can be seen in his staging of Pyrrhic dances by young Greeks in AD 57 (Suetonius, *Nero*, 12. 2). Yet it was not until after the murder of his mother Agrippina that Nero was able to give full and free expression to his personality. In AD 59 Nero himself performed on the cithara at the Juvenalia, where he celebrated the first shaving of his beard (Suetonius, *Nero*, 11.1; Tacitus, *Annals*, 14. 15. 1; Dio, 61. 19. 1). Not only Nero but certain Roman aristocrats also appeared on stage, acting dramatic roles. Yet the Juvenalia took place within the palace grounds in private: it was not until AD 64 that the 27-year-old Nero made his debut on the public stage, at Naples (Tacitus, *Annals*, 15. 33–34 and Suetonius, *Nero*, 20. 2–3). Conspicuously, he avoided Rome for this performance, perhaps anticipating a hostile reaction.

Yet his confidence quickly grew. In AD 60 he had instituted a quinquennial contest along Greek lines called the Neronia, in which participants competed for prizes in oratory, singing, playing the lyre, and poetry (Tacitus, *Annals*, 14. 20. 21; Suetonius, *Nero*, 12. 3; Dio, 61. 21. 2). According to the sources, at the second Neronia in AD 65, despite the senate's attempts to dissuade the emperor from performing, Nero recited a poem on stage and then accompanied his singing on the lyre (Tacitus, *Annals*, 16. 4. 5; Suetorius, *Nero*, 21; Dio, 62. 29. 1). If these festivals were designed to inspire fellow Romans with a passion for Greek culture, Nero was unsuccessful. Subsequent historical and literary accounts cast the emperor in a tyrannical light, partly because the spectators at his shows were increasingly obliged to become the focus of attention themselves: either they performed on the stage or their reactions to Nero's display were carefully monitored by imperial agents. Nero's manipulation of his fellow Romans was too overbearing and superficial, rather as when Peter the Great tried to make his fellow Russians more "western" by getting them to shave off their beards.

When Nero died, the pretence of philhellenism that had gripped Rome perished with him. The new Flavian dynasty bolstered their own power by reversing many of Nero's policies and ideologies. Thus, Vespasian rejected Nero's infamous Golden House as an imperial residence, rehabilitated the colossal golden statue of Nero to represent the sun, and refurbished the temple to the Divine Claudius, which Nero had deliberately neglected. The theatrical philhellene Nero had temporarily redefined the imperial identity, but this proved unpopular with the senate, so the more austere Vespasian wisely took as his role model Augustus rather than Nero. Yet there is evidence that Nero was missed by some. After his death, no fewer than three men appeared, each one falsely claiming to be the emperor. The first surfaced on the island of Cynthus in AD 69 (Tacitus, *Histories*, 2. 8–9), the second in Asia Minor in AD 80 (Dio, 66. 19), and the third among the Parthians in AD 88–89 (Suetonius, *Nero*, 57. 2). Whatever their personal motives, such impostors clearly hoped to win the public approval of those who, long after the emperor's death, "used to lay spring and summer flowers on Nero's grave" (Suetonius, *Nero*, 57). The fact that all three pretenders materialized in the east suggests that Nero's posthumous standing there was much stronger than in the west.

Nero's treatment of Greece itself can be seen as inconsistent. After the fire of Rome in AD 64, the emperor sent agents to Greece to remove treasures (including statues of the gods) from shrines at Athens, Delphi, Olympia, and Thespiae. Pausanias says that Nero "robbed Apollo of five hundred bronze statues, some of gods and some of men" (10. 7. 1). This move may have been necessitated by short-term financial expediency, but it should warn us not to over-romanticize Nero's relationship with Greece. He owes his reputation as a philhellene above all to his liberation of Greece from taxation and Roman administration. This flamboyant emancipation took place at a special celebration of the Isthmian games at Corinth on 28 November AD 67, while Nero was conducting an artistic tour of Greece. By this action he recalled the actions of Titus Flamininus in 196 BC, who had also liberated Greece (Polybius, 18. 46). On a damaged marble stele a version of Nero's speech from this occasion is preserved, together with a decree from Akraiphiai in Boeotia honouring the emperor (*Inscriptiones Latinae Selectae*, edited by Hermann Dessau, 1892, reprinted 1979, no. 8794). Although Nero told his Greek audience that he acted "not out of pity for you but out of goodwill", there are hints in the speech that his action was not entirely altruistic. Nero also boasted proudly that although other leaders had liberated cities, only he had liberated a province. The competitive emperor seems concerned here, not with promoting the well-being of Greece, but with bolstering his own reputation. At one point Nero even wishes paradoxically that Greece were still at its peak so that more people might enjoy his favour. This, surely, is a revealing formulation, which puts into perspective Nero's reputation as a philhellene, as did the fact that he called his Greek games the Neronia, after himself. The Akraiphiai decree shows that in AD 67 there was gratitude in Greece for the liberation, but this may not reflect universal opinion: as Tacitus says in a different context, "Services are welcome as long as it seems possible to repay them, but when they greatly exceed that point they produce not gratitude but hatred" (*Annals*, 4. 18). In any case, Nero died so soon afterwards that no consolidation of the grant was possible. After the civil wars of AD 68–69 the new emperor Vespasian complained that Greece had forgotten how to be free and Nero's gift was swiftly cancelled.

Nero's benefaction had an immediate impact in the short term, as the Akraiphiai decree shows, but did his treatment of Greece make any long-term difference? In some ways, it was a mixed blessing for Greece to have received such a conspicuous benefaction from this disgraced emperor. Even in the Akraiphiai decree Nero's name was deliberately erased from the stele after the senate had condemned the dead emperor to oblivion (*damnatio memoriae*). Nero himself was quickly cast in the literary tradition as a yardstick for monstrosity even by Greek writers, as when Philostratus makes Vespasian say that he would rather have Nero come back to life than surrender the empire to Vitellius (*Vita Apollonii*, 32). Even so, despite the backlash against Nero, there are signs that some Romans began to embrace Greek

culture. Juvenal (2nd century AD) included in one satire a xenophobic tirade about Rome being infiltrated by Greek habits (*Satires*, 3. 58–125), and under Trajan (AD 98–117) new senators were recruited from Athens and Sparta, which resulted in significant cultural interaction. During the 2nd and 3rd centuries AD there was a period of cultural renaissance in Greece, which became known as the "Second Sophistic". Some scholars suggest that Nero's shortlived liberation of Greece even provided the spark that caused this intellectual revival. Nero's unsubtle attempts to inculcate philhellenism in his fellow Romans certainly failed, but the theatrical liberation of AD 67 still heralded a remarkable new era of literary creativity in Greece.

RHIANNON ASH

Biography

Born in AD 37, Nero succeeded Claudius as emperor in 54. After the death of his mother Agrippina he felt free to indulge in his love of Greece. He himself sang and performed on stage, and he introduced Greek-style games at Rome (called the Neronia). In 66–67 he toured Greece and liberated the province from Roman administration and taxation. The gift was cancelled soon after his death in 68 but it may have helped to pave the way for the Second Sophistic movement of the 2nd and 3rd centuries.

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NICAEA

City in northwest Asia Minor

Nicaea (modern Iznik) is strategically located on main highways at the edge of a lake in northwest Asia Minor, a day's journey from Constantinople. A centre of Hellenism in the Hellenistic, Roman, and Byzantine periods, it played a major role in the history of the Christian Church.

Established originally by Antigonus I, Nicaea was refounded around 300 BC by Lysimachus who named it after his wife. From 281 to 74 BC it was one of the centres of the kingdom of Bithynia. Under the Romans, Nicaea controlled a vast territory, and struck an extensive and varied coinage. It was built on a rectangular plan and adorned with numerous public buildings, some of them on an extravagant scale that attracted unfavourable comment from Pliny, who governed the region from AD 110 to 112. Few monuments have survived from these peaceful centuries. The troubles of the 3rd century, however, produced powerful surviving fortifications that allowed Nicaea to resist all attacks for a thousand years.

Nicaea was an early centre of Christianity (a late tradition has its church founded by St Andrew) and home of several saints and martyrs. In 325 the first Ecumenical Council met there. The emperor Constantine presided over the gathering of 318 bishops who defined orthodox doctrine against the Arians, producing the creed that is still recited. During late antiquity Nicaea flourished as an administrative centre, but suffered from devastating earthquakes and the growth of nearby Constantinople. Several of its buildings were restored by the emperor Justinian in the 6th century.

CLIVE FOSS

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NICANDER

Poet of the (?)2nd century BC

Nicander of Colophon, a Hellenistic poet of disputed date (probably 2nd century BC), wrote at least 20 works, most in dactylic hexameters or elegiac couplets. Like other erudite Hellenistic poets, he also wrote works of a lexicographic and linguistic nature in prose. A "metaphrast", he converted the prose treatises of earlier writers into epic verse, even when he had no expert knowledge of the subject. Only his *Theriaca* (958

hexameters on poisonous creatures and on antidotes for their bites and stings) and *Alexipharmaca* (630 hexameters on antidotes to poisons) are extant. Among his more influential lost poems are *Georgics* and *Melissourgika* [Bee Keeping], both of which were used by Virgil in his *Georgics*, and *Heteroioumena* [Metamorphoses], which directly or indirectly provided Ovid and Antoninus Liberalis with material for their *Metamorphoses*. Fragments of other poems, for example on geography and local history, are extant, but of many attested works (such as Nicander's rendering in epic verse of the Hippocratic treatise *Prognostic*) there is almost no trace.

The poem *Theriaca* is probably an adaptation of the prose work *On Wild Animals* by an early 3rd-century BC expert on poisons, Apollodorus. Both *Theriaca* and *Alexipharmaca* also discuss the effects of plants on the human body, and for this Nicander likewise appears to have been indebted to Apollodorus, who in turn might have used Diocles of Carystus' work *Rhizotomikon* [Root-Cutting].

The ostensible aim of *Theriaca* is to help those suffering from the stings and bites of snakes, lizards, tortoises, turtles, frogs, toads, fish, scorpions, spiders, bees, wasps, beetles, moths, and flies. Like other Hellenistic scholar-poets, Nicander in fact strives to amaze his readers with a dazzling display of technical virtuosity in the poetic representation of a recalcitrant, unpoetic subject. Seemingly disparate, incompatible elements – archaic epic diction (including numerous Homeric hapax legomena), bold neologisms, technical zoological terminology, epic verse, botany, medical prescriptions ostensibly addressed to a physician, and learned allusions to earlier poetry (especially to Callimachus) – are skilfully woven into a recondite, affectively rich poem.

Exploiting the tensions between his science and his poetry, between his subject and his presentation thereof, Nicander in *Theriaca* describes the poisonous aggressors and their poisoned victims in such a way as to convey his predecessors' "objective" zoological, botanical, and medical expertise, while also using striking metaphors, similes, and aetiological myths to evoke the physical peril, the aesthetic revulsion, and the fright and terror to which the victims are exposed. The tension between science and poetry, which is also reflected in many lexical, semantic, metrical, and syntactic strains in Nicander's language, is thus cleverly translated into a suggestive tension between the victim as scientific object and as terrorized subject in need of the poet's aid.

Further evidence of the poet's aspiration to display technical virtuosity is the insertion of an "epic" catalogue of 82 plants (*Theriaca*, 837–914) in the concluding section on general remedies – plants whose "clinical" applications are not specified – and the covert integration of an acrostic signature of Nicander's own name (*Theriaca*, 345–53) in a purple passage on the burning thirst caused by the bite of a smallish viper, the dipsas. *Theriaca* ends not only with another reminder of the poet's name and of his birthplace (Clarus, near Colophon), but also with a bold attempt to assimilate Nicander's didactic metaphrasis to Homeric epic: "And now you should hereafter preserve the memory of Homeric Nicander, too, whom the snow-white town of Clarus nurtured" (*Theriaca*, 957–58).

Nicander's hexametric poem *Alexipharmaca* exhibits many of the same characteristics as his *Theriaca*. After a proem addressed to Protagoras of Cyzicus, it presents 22 substances and entities – animal, vegetable, and mineral – that are fatal or harmful to human beings. Some of the more notorious toxic substances known to antiquity are included: hemlock, aconite, opium, henbane, and blister beetle. In each case, the poet first describes the symptoms produced by the poison, and then the antidotes. The poem ends with a *sphragis* (authorial "seal") very similar to the one in *Theriaca*: "And now you should hereafter preserve the memory of Nicander, composer of songs, and guard the law of Zeus, protector of guest-friendships" *(Alexipharmaca*, 629–30). In both extant "seals" Nicander therefore presents a poetic, not a scientific self-understanding ("Homeric Nicander", "composer of songs"), signalling that his poetic identity is a key to understanding his extant works.

Nicander's influence on later Greek and Latin literature was considerable. Not only did Virgil, Ovid, and Antoninus Liberalis draw on his works (see above), but Lucan, Pliny the Elder, Erotian, Aelian, and Athenaeus of Naucratis also benefited from direct or indirect familiarity with Nicander. In the 1st century BC the enormously learned scholar Didymus ("Chalcenterus") appears to have made extensive use of Nicander's lexicographic contributions. Although Dioscurides only twice cites Nicander's views in his *Materia Medica* (3. 29, 4. 99), Galen in his pharmacological works quotes a number of verse passages from Nicander. Papyrus fragments from the 1st to 3rd centuries AD further confirm Nicander's popularity in the Roman empire.

An invaluable corpus of ancient scholia became attached to Nicander's two extant poems. The extant scholia not only explain many of Nicander's words, expressions, and references but also report extensively on the views of Hellenistic authors whose works are lost, including three of the six attested ancient commentators on Nicander. Furthermore, the scholia offer rich data on folk traditions, including superstitions concerning spiders, snakes, toads, frogs, wasps, and salamanders.

Extant Greek paraphrases of *Theriaca* and *Alexipharmaca* were composed by Eutecnius some time after the 2nd century AD. They are included in one of the most famous Byzantine scientific manuscripts, the illuminated "Vienna Dioscurides" (Vienna, Österreichische Nationalbibliothek) produced in Constantinople in AD 512–13. Eutecnius' prose versions here are accompanied by magnificent illustrations of snakes, insects, spiders, scorpions, and other animals. These illustrations also appear in a 10th-century copy of the "Vienna Dioscurides" (now in the Pierpont Morgan Library, New York). In the 10th century a remarkable illuminated manuscript of Nicander's two poems was produced (Paris, Bibliothèque Nationale, Suppl. gr. 247). It contains images not only of the snakes, scorpions, plants, etc. mentioned by Nicander, but also of human figures displaying the effects of the poisonous substances or illustrating Nicander's mythological allusions. In the 13th century Maximos Planudes also showed a keen interest in Nicander, producing a manuscript (Florence, Biblioteca Medicea-Laurenziana) that contained both poems.

The scholia, paraphrases, and illustrations are further evidence not only of the interest that Nicander continued to stir among the later ancient and Byzantine cultural elite hut also of their fascination with the amalgam of science, folklore, myth, poetry, and magic that is characteristic of much of the ancient Greek toxicological tradition. This fascination continued to a striking degree in the 16th century, during which many printed

editions, several translations into Latin, including one in epic verse, and a verse translation into French were published. A critical appreciation of Nicander's technical virtuosity was widely shared in the early modern period.

HEINRICH VON STADEN

Biography

Born at Clarus near Colophon probably in the 2nd century BC, Nicander wrote at least 20 works, of which two survive: *Theriaca* on poisonous creatures, with remedies against their stings and bites, and *Alexipharmaca* on antidotes to poisons. Both are indebted to Apollodorus. They mix superstition with botany and medicine. Lost works include poems on geography, local history, and medicine.

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NICOPOLIS

City in Epirus

Situated on the isthmus of the Preveza peninsula 6 km north of Preveza, which is itself at the entrance to the Ambracian Gulf opposite Actium, Nicopolis was founded by Octavian on the site of his army encampment during his campaign against Mark Antony in 31 BC. From the outset it operated as an administrative centre serving the cities of northern Epirus. Self-consciously Greek, it never accepted (unlike Corinth) the status of a Roman *colonia*. Its pride in its status is instanced by Epictetus, who lived there at the end of the 1st century AD (*Dissertationes*, 4. 1. 14), and confirmed by its coinage that continued to be minted until the reign of Gallienus (AD 253–68). During its early years, in the reign of Augustus, it had been chosen as the site of the Actian Games, celebrated every four years and given equal status with the major Panhellenic games.

Christianity came early to Nicopolis. Paul asks Titus to come to him there for he "had determined there to winter" (Titus 3: 12) at an unknown date, depending on the chronology of Paul's last years. There was a well-organized community in the city in the early 3rd century AD, for Origen visited Nicopolis *c.*220 and found a copy of the scriptures there, which he used as an authority in compiling the *Hexapla* (Eusebius, *Historia Ecclesiastica*, 6. 16. 2). In the 4th century Nicopolis achieved metropolitan status and, as elsewhere in the Hellenic world, Christianity gradually became the predominant religion in the city. Two large basilicas dating from the early 6th century have been discovered and excavated. One, built by bishop Alkison (died *c.*515) within the city's walls, measured 68.90 by 31.60m; the other, built by bishop Dunetios, had excellently preserved mosaics. The site of the metropolitan's palace was found near Alkison's basilica.

WILLIAM H.C. FREND

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NONNUS

Epic poet of the 5th century AD

Although Nonnus was born in Panopolis, he most probably lived in Alexandria, and travelled extensively in the eastern part of the empire, particularly Asia Minor and Constantinople. He wrote an epic poem of approximately 25,000 lines with the title *Dionysiaca*. As the title suggests, it is about Dionysus, dealing particularly with the subject of Dionysus in India (books 13–40). There was a fascination with Dionysiac themes in both art and literature in late antiquity and Nonnus was not the first to deal with this topic: Euphorion and Dinarchus from Delos were his predecessors in the choice of Dionysiac themes in poetry.

His work stands on the borderline between the ancient and the Byzantine worlds. There is an apparent imitation of Homeric forms, although the metrical similarity is strictly technical. The decision to write an epic poem would almost inevitably put an author in competition with the Homeric poems. Nonnus uses Homeric vocabulary, although as a student of Hellenistic poetry he transforms it into more sophisticated usage. He is inspired by Homeric narrative techniques as well as the epic heroic atmosphere, which he tries to recreate in his own work. Passages such as the two proems, the weaving of Aphrodite in book 24, the shield of Dionysus in book 25, the theomachy in book 36, the various extensive catalogues (books 13, 14, and

26), as well as the presentation of the gods bear witness to both a structural and a more substantial inheritance from Homer. Nonnus was also influenced by Hellenistic poetry. There are many parallels with some love epigrams of the *Greek Anthology*. His use of *propemptika* (dirges) and erotic narrative, as well as his erudite concern with aetiological stories and pastoral motifs, place him in the literary tradition of the Alexandrian school. The pastoral mode is only too evident in the episodes of Actaeon and Ampelus, and Hymnus and Nicaea.

The context of the *Dionysiaca* is inspired by Alexander's expedition to India, the "new Dionysus". This gives Nonnus the opportunity to present an accumulation of various legends and fables on the Dionysiac tradition, with the defect of creating a heavily erudite style, as many scholars argue. Such condemnations, however, do not take into consideration the literary tradition that Nonnus had inherited and the transition in the literary tradition that took place at this very time, with the result that even recent scholarship lacks appreciation of late antique poetry. The historical element that is inserted in an epic context reshapes the poetic ideals of the epic. On the other hand, a rigorous rhetorical tradition has been established and plays an important role in contemporary literary products. There is also a significant debate as to whether there are inter-textual allusions to Latin poetry, particularly Ovid and Virgil, which has not yet reached a conclusion. His choice of fusing Dionysian motifs with Alexandrian legends could be appropriated by the emperors who campaigned in the east, revealing also that literature is not alien to contemporary politics, and has a cultural, historical, and even political context.

A major innovation is Nonnus' choice to make Dionysus the central hero of an epic that clearly is indebted to the Homeric epics, even though Dionysus is almost absent in Homer. There was a rich literary and artistic tradition associated with the figure of Dionysus that Nonnus exploited. Dionysus, the wandering god, who transformed himself from youth to old man and vice versa, enjoyed an immense popularity and proved to be the other side of the coin to the Alexandrian theme. Dionysus had a particular appeal to contemporary ideological tensions, for both pagans and Christians. According to Eusebius, Dionysus played an important role in soteriological hagiography, since he appeared from antiquity as a god offering salvation. John Malalas, a historian of the 6th century AD, argued that Dionysus was a mortal, stating that his tomb could be found at Delphi. Glen Bowersock (in Hopkinson) writes that the parallel between Christ and Dionysus was responsible for producing the semi-theatrical work *Christos Paschon* [Christ Suffering], in which Christ replaces Dionysus in a verse borrowed from Euripides, an identification that lies, according to Eusebius and Malalas, at the heart of the Nonnian epic.

Nonnus is also believed to be the author of a paraphrase in epic hexameters of St John's gospel, with the title *Metabole of John*'s *Holy Gospel*. This is not a simple paraphrase of the gospel, and it renders the personality of Nonnus even more complicated. Some scholars have argued against Nonnian authorship of this work, adducing mostly stylistic arguments. Although the Christian religion had long been established in the Roman empire, the polarities of paganism and Christianity still existed. Some scholars have argued that it is due to Nonnus' conversion to Christianity that the *Dionysiaca* was left unfinished; others say that the domination of pagan motifs was not as unacceptable as we may think for a Christian poet, and place Nonnus' conversion much earlier, if it ever happened.

ANDROMACHE KARANIKA-DIMAROGONA

See also **Poetry (Epic)**

Biography

Born in Panopolis in Egypt in the first half of the 5th century AD, Nonnus probably lived in Alexandria and travelled widely in the eastern empire. He was the author of an epic poem entitled *Dionysiaca* in 48 books which deals particularly with Dionysus in India. He is also credited with a poetic paraphrase of St John's gospel.

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NOVEL

Five complete lengthy fictional prose narratives (conveniently called "novels" or "romances") survive from Classical antiquity: *Callirhoe* by Chariton of Aphrodisias (8 books; probably 1st century AD); *Ephesian Story* by Xenophon of Ephesus (5 books; probably pseudonymous; 1st–2nd century AD); *Leucippe and Cleitophon* by Achilles Tatius (8 books; late 2nd century AD); *Daphnis and Chloe* by Longus (4 books; 2nd–3rd century); and *Ethiopian Story* by Heliodorus of Emesa (10 books; 3rd–4th century AD). In addition Photios in the 9th century read and summarized at length two works now lost: *The Wonders beyond Thule* by Antonius Diogenes (24 books; late 2nd century AD) and *Babylonian Story* by Iamblichus (16 books; soon after AD 165). Since the 19th century, our knowledge has been supplemented by the discovery of papyrus fragments of several more lost novels, the most important of which is the so-called *Ninus Romance*, probably of the 1st century BC and thus the earliest known example of the genre.

The extant works form a tightly knit corpus of "ideal" romances, all sharing essentially the same plot: a beautiful and noble couple fall in love and, either before or just after marriage, pass through a number of adventures, generally including separation and extensive and perilous journeys during which they encounter pirates and suffer shipwreck, apparent death, and unwelcome amatory advances from rivals of both sexes, remaining faithful to one another until they are eventually reunited and return home, implicitly to live happily ever after in a state of wedded bliss. The patron gods of the romantic world are Tyche

(Chance) and Eros; the role of the protagonists is generally to suffer nobly and lament tragically, rarely to act decisively. Despite the skill that some novelists show in characterization, the interests of the form as a whole are with plot rather than psychology. However, all the individual writers vary the basic formula to some extent, and some of the papyri are radically different in tone and content, indicating that the apparent uniformity of the genre is in fact largely due to the tastes of Christian Byzantium.

The novel was the last of the literary genres to appear in antiquity, and much scholarly labour has been devoted to the question of its origins. Particularly influential was Erwin Rohde's hypothesis that it arose from a combination of travel stories and Hellenistic erotic narrative poetry. Others have suggested that the novel evolved out of Hellenistic historiography, with its concern for emotional effect, or New Comedy, with which it shares plot elements of amatory intrigue, or obscure local legends, or have sought the roots of the Greek novel in the narrative traditions of Egypt and the Near East. More recently, however, a consensus has emerged that the undoubted similarities and references to earlier literature – particularly the central texts of Homeric epic, and Classical tragedy, rhetoric, and historiography – are less a sign of the genre's origins than of a deliberate self-positioning in the Classical tradition on the part of its exponents.

This bears on the important question of the readership of these early novels. There is very little direct evidence on this point. The novel was neglected by ancient critics, to the extent that there was not even an agreed term for this type of literature before the Byzantine period. The few references to novels and novel-reading are unanimously uncomplimentary. This silence played to the prejudices of 19th-century scholars against romantic fiction, and gave rise to a widely held view that the novel was intended for a mass readership created by the spread of literacy in Hellenistic times, and including such marginal groups as women, young people, and the half-educated. However, as physical objects the novel papyri are indistinguishable in quality from other texts, in no way suggesting a cheap and down-market product, and their numbers remain relatively modest, although we cannot be certain to what extent any given copy may have circulated from reader to reader. Even the simplest of the novels would require a high level of literacy on the part of its readers, and the intertextual play of most of them implies an audience intimately familiar with a wide range of literature. In other words, it looks as if the people who bought and read novels were more or less those who read the rest of Greek literature.

This conclusion in its turn implies that the novel as a genre emerged to supply a market demand for pleasurable reading among the educated urban elite of the Greek east in the Hellenistic and imperial periods. We must not, of course, assume that every reader at every period had the same motive for reading novels, but it seems likely that the novel, as a form, was intended for private reading and that the thematic centrality of love reflects a new concern with the individual self. Moreover, all the novels deal in some oblique form with the question of what it means to be Greek and stress a continuity with the Hellenic past that pointedly ignores the very existence of Rome. Interestingly, none of the surviving novelists was a native of the Greek mainland, and several of them were of non-Greek extraction, indicating that the national identity they assert was cultural rather than racial. The central feature of the romantic plot, the exclusive and passionate love of a heterosexual couple, is an important cultural innovation. The Classical model of disparity between sexual partners with an interior dialectic to master potentially disruptive emotions is replaced by a fully reciprocal passion, viewed positively as a valid basis for personal happiness and marital stability. It is difficult to know to what extent the sexual ethic of the novels reflects a movement towards romantic behaviour in real life, but the aspirations it embodies are as much civic as personal. The marriage that is consummated or resumed at the climax of the plot is not just a way of socializing passion, but is in itself a social function, a celebration of the ancestry and self-perpetuation of Hellenic aristocracy and its values and culture.

The earliest novels have a distinctly historical thrust, as if legitimizing their problematic fictionality by filling up the unwritten corners of history. The earliest known novel takes the legendary figures of Ninus and Semiramis – accepted as historical from Herodotus onwards – and transforms them into romantically attached adolescent cousins coyly seeking parental assent to an early marriage. Chariton sets his story in the years following the Peloponnesian War, with a heroine who is a historically attested daughter of the Syracusan statesman Hermocrates, and a Persian king Artaxerxes facing a revolt in Egypt apparently modelled on that of 360 BC. Among the fragmentary novels is one whose protagonists are the son of Miltiades and the daughter of Polycrates of Samos, and whose scenario plays out around events recorded by Herodotus. Later novels emancipated themselves from literal historicity, and in some cases moved their plots into more exotic locations, which none the less adhere to a geographical and historical verisimilitude defined by Greek literary tradition.

There is a marked division among the five extant novels between, on the one hand, Chariton and Xenophon, who are relatively simple in construction and expression, and, on the other, the three later authors, whose erudition and complexity are clearly linked with the rhetorical renaissance known as the Second Sophistic. Chariton tells his story with pace and skill, in a style modelled on that of Xenophon, maintaining the pose of a historian roughly contemporary with the events he narrates. Although his is probably the earliest European novel to have survived, it is already playing with the ethical simplicity of its generic stereotypes. Its heroine, for example, is apparently kicked to death by her beloved but jealous husband near the beginning of the book. Reviving in the tomb, she is stolen by tomb-robbers and taken to Miletus, where she discovers that she is pregnant and reluctantly agrees to a bigamous second marriage for the sake of her unborn child. The second husband, who fills the conventional role of rival, is no villain, but a cultivated and morally scrupulous gentleman, agonizing over his infatuation. Xenophon's novel is, in terms of literary quality, the weakest of the five: baldly narrated and luridly imagined adventures succeed one another rapidly and with little rational connection, prompting the theory that what we have is only an epitome of a more satisfactory original. Of the sophistic novelists, Achilles Tatius is the only idealistic novelist to employ a first-person narrator, and his story often comes close to parodying the genre: the heroine Leucippe, for instance, would be only too happy to lose her virginity prematurely to the hero and narrator, Cleitophon, and is saved only by a comically sexual

dream that leads her mother to interrupt their illicit tryst. Later, the theme of apparent death takes a Grand Guignol twist when Leucippe is ritually disembowelled before her lover's eyes and her entrails cooked and eaten, only for him to learn a couple of pages later that her sacrifice was an elaborately staged trick with a retractable knife and a sheep's bladder. Cleitophon for his part, when Leucippe is apparently decapitated, obsessively maintains his chaste devotion despite being married to an amorous and increasingly frustrated widow from Ephesus; but when his beloved and his wife's husband return miraculously from the dead, he casually consummates the now void marriage on a jailhouse floor before escaping disguised as a woman. Achilles packs his pages with sophistic digressions and rhetorical debates, for example on the relative merits of heterosexual and homosexual intercourse or the effects of love in the natural world. Of the two novels summarized by Photios, that of Antonius Diogenes was untypical of the genre: immensely long and relegating the love interest to subordinate episodes, it dealt primarily with travel and geographical paradoxography, leavened by a dose of black magic and the supernatural, and was elaborately structured as a series of concentric narratives, including some plausibly serious Neopythagorean philosophy. Iamblichus' novel seems to have been full of sensational and melodramatic incident, and innovated by keeping its lovers together in body but separated by psychological forces such as the heroine's homicidal jealousy.

The ideal romance was not the only form of fiction written in ancient Greek, but the absence of critical discussion from antiquity makes it impossible to know precisely how fictional genres were conceptualized. The old distinction between the serious idealistic Greek romance and the comic-realistic novel represented by the Latin writers Petronius and Apuleius seems untenable in the light of the recent identification of fragments such as those of the *Phoenician Story* of a certain Lollianus, which combine blood-curdling horror and scatological comedy. It may be that other boundaries, such as that between full-length novels and *Milesian Tales*, short stories of scabrous content, are equally illusory.

With the probable exception of Heliodorus, the production of novels apparently ceased early in the 3rd century AD, although papyri indicate that they were still read, at least in Egypt, in the 7th. The disappearance of the genre may be partly due to its inherent limitations and progressive ossification, but the most important causes must be sought in the changing cultural circumstances of late antiquity which removed its market appeal. However, motifs from the romances find their way into Christian narratives such as hagiographies, martyrologies, and apocryphal acts, and at least one of them (*Metiochus and Parthenope*) was absorbed into Near Eastern traditions. In Byzantium, Heliodorus and Achilles Tatius were to some extent privileged by the fact that their authors were believed to be Christian; Achilles' protagonists even resurface as the parents of St Galaktion of Emesa! Despite spasmodic signs of interest, including Photios in the 9th century and a spate of learned imitations in the 12th, the survival of the rest was precarious, and they had little direct influence either on the later vernacular romances or on the birth of the modern Greek novel, both of which looked to models from western Europe.

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O

OBSIDIAN

Obsidian is a kind of volcanic glass, normally dark blue to black in colour. It is exceptionally hard, fractures in the same way as flint, and, like flint, was employed to provide razorsharp cutting edges for tools (including knives and sickles) and weapons (including arrowheads). Studies of the techniques of manufacture of marble figurines have suggested that obsidian implements were among the tools employed.

In use from the Palaeolithic period, obsidian seems to have been most commonly employed in the Aegean during the Neolithic and Early Bronze Age, before bronze had become widely available. In the Late Bronze Age, vessels were occasionally available. In the Late Bronze Age, vessels were occasionally manufactured of this material, usually a variegated type.

Investigation of the extent to which obsidian continued to be used in later antiquity has proved somewhat inconclusive but it seems likely that, in addition to flint and chert, it was a regular alternative to metal in places where the latter was unavailable because of cost or inaccessibility. Today these materials are still sometimes used by primitive agricultural communities for the "teeth" of sickles and threshing sledges, and they have been employed for gun flints.

The only two ancient Aegean sources of obsidian are on the islands of Melos (in the southwestern Cyclades) and Yiali (by Nisiros in the Dodecanese). That on Melos was the earlier and by far the most important; Yiali obsidian was used for most of the Late Bronze Age vessels mentioned previously. Melian obsidian is widely distributed on prehistoric sites in the central and south Aegean and on the Greek mainland as far north as Thessaly. Sometimes it is found in the form of finished artifacts, sometimes as unworked cores. The finer blades were struck off larger "cores", or else detached by "pressure flaking" with a wooden tool.

Obsidian was probably an important item of trade in prehistoric times. One theory sees the commodity exploited by the Melians and exported by them, either worked or unworked; another holds that the raw material was removed by visitors to the island, without reference to the locals, and worked elsewhere.

The significant contributions of obsidian to the Greek tradition seem chronologically limited to the prehistoric phase. It certainly played an important part in technological developments which affected warfare and various "industries" and crafts. Just as important however was its role in stimulating trade and contact, and in giving the Aegean area in general and Melos in particular some economic and cultural sway over their neighbours. Apparently Melian features in the pottery of other islands, and Cycladic exports to and influence on sites on the Greek mainland in the Early and Middle Cycladic periods, may have been brought about in this way.

In Classical and later times the use of obsidian helps to demonstrate the natural dependence of poorer and more remote communities on cheap and accessible raw materials, and thus relatively primitive technology. In this way clearly documented uses of the material can often illuminate prehistoric finds where direct evidence for the function is lacking. Such links also suggest a long and continuous history of use.

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OLBIA

City on the north Black Sea coast

Olbia, situated on the right bank of river Hypanis (today Bug), near the mouth of the river Borysthenes (now Dnieper) in modern Ukraine, was founded by the Milesians, possibly as early as the end of the 7th century BC (according to the finds). It was one of the largest Greek colonies on the north coast of the Black Sea and was well known in the ancient world. Surrounded by native tribes (Scythians, later Sarmatians), Olbia had close, but sometimes tense, relations with its hinterland. Already in the first half of the 6th century numerous small settlements had developed on both banks of the Hypanis and Borysthenes, the most important of them on the island of Berezan.

Written sources about Olbia are rather scarce (and are for the most part inscriptions), but there are rich archaeological finds; as there was no later reoccupation of the site, it has consequently suffered only from being used as a quarry in the 18th and 19th centuries for the construction of the Turkish (and later Russian) fortress at Ochakov, and for building houses in the neighbouring village of Parutino. The area has been excavated in many campaigns since 1901.

The ancient city had a triangular shape with an upper town and a lower one which is now largely submerged beneath the waters of the Bug. The upper town began to be settled in the 6th century BC; some of the excavated streets go back to that time (it has now become clear that Olbia never had a unified rectangular street system, as was long assumed). About 550 BC the temenos of Apollo Iatros was constructed, some 20 years later that of Apollo Delphinios, and – to the south of it – the agora followed. About 500 BC the style of private housing changed from dug-out dwelling to surface buildings.

The city was most prosperous from the 5th to the 3rd centuries BC. Its harbour was one of the main emporia on the Black Sea for the export of cereals, fish, and slaves of Greece, and for the import of Attic goods to Scythia. Its silver and bronze coins (not minted but cast) circulated widely. In the 5th century Olbia may have been intermittently under the sway of a local tyrant or of Scythian princes; at the beginning of the 4th century the city acquired a democratic constitution (*demos* and *boule* appear regularly in inscriptions). Already in the middle of the 5th century it had undertaken intense building activity (around this time Herodotus visited the city to gather information about the surrounding regions). The territory of the city increased, with the lower town now being populated as well; a water supply system and probably also the first city wall were built. The construction of private houses reached a peak at this time; the houses (built with stone or brick walls and tiled roofs), of one or two storeys, often had a cellar, wall painting, and mosaics. In the necropoleis found to the north, west, and south of the city many graves had vaulted tombs in a form characteristic of the north Pontic area.

The central *temenos* (precint), dominated by the Ionic temple of Apollo Delphinios, was enlarged and given its trapezoidal form; apart from the main altar (with a platform probably for the priest and three holes for wine offerings), there were several other buildings in the precinct (further altars, a treasury, a cistern, a workshop for bronze). In the agora area a gymnasium was built, probably with a bath (enlarged in Hellenistic times). The western *temenos*, with a columned hall at its entrance, contained sanctuaries for Apollo Iatros and later for Hermes, Aphrodite, and the mother of the gods, a building of unclear function with three round and six rectangular altars. Since the 6th century BC one of the most important cults in the lower Bug region had been that of Achilles, imported by the Milesian colonists and originally centred on the island of Leuce (thought to be the dwelling place of the great hero), where the inhabitants of Olbia erected several monuments with inscriptions; countless magical graffiti, including the name of Achilles, were found in Olbia itself and its surroundings. Moreover, in the central *temenos* little plates made from bone with graffiti on them testify to the existence of a thriving community devoted to Orphism (a mystery cult centred around Dionysus and Orpheus) at Olbia in the 5th century. Many works of art (sculpture in stone, clay, and bronze and reliefs), imported from Greece as well as of local origin, have been found, such as a late Archaic *kouros* (naked youth) of limestone from the gymnasium, the famous grave stele of Molpagores' son Leoxos (490/480 BC) showing a naked youth in Greek style on one side and a person in Scythian clothing on the other, and the votive relief of the *sitones* (see below). There was also extensive local production of vases.

Reports of further political events are scarce. At the beginning of the Hellenistic period (probably around 325 BC), Zopyrion, Alexander the Great's governor of Thrace, made an unsuccessful attempt to take Olbia by force. New building activity shows the ongoing importance of Olbia as well as the persistence of threats from outside: numerous fortified farmhouses were built in the vicinity; the agora was provided with an impressive portico, and other new public buildings were constructed, the town walls renewed, and several towers added; a new cult, that of the god Demos ("people"), was established. Since the middle of the 3rd century BC, however, the whole agricultural territory of Olbia was repeatedly pillaged by invading barbarians, which put the nutritional base of the city severely at risk. A board of five *sitones* (food commissioners) was then installed who had to procure cereals and distribute them among the inhabitants; later the city tried to check famine, social unrest, and external threats by courting the leaders of the semibarbarian "Mixellenes" as allies. This led to the loss of the city's independence. In the middle of the 2nd century BC Olbia was under the overlordship of the Scythian King Skiluros, and in the 1st century BC it became part of the Bosporanian kingdom of Mithridates Eupator. The biggest disaster, however, came with the sack of the city by the Getae under King Burebista in 55 BC: Olbia was burned down and lost two-thirds of its settled area. Still, it continued to exist, albeit on a much smaller scale; more and more native people were integrated among the citizens, and these Scythian elements began to play a major role in the political life of the city. Olbia was in this state when it was visited by Dio of Prusa during his wanderings (i.e. shortly before AD 96); Dio has left a vivid description of the city (which he calls Borysthenes, as others do, because of the proximity of the harbour of Borysthenes on the river of that name) in his *Borysthenitic Discourse*. In the 2nd century AD a new period of prosperous stability began: under Antoninus Pius a

Roman garrison built the citadel in the southern part of the upper town; under Septimius Severus the region was incorporated into the province Lower Moesia. Two destruction levels show that Olbia was burned down twice in the 3rd century, probably during the so-called Scythian or Gothic wars. When exactly it ceased to exist is uncertain: Byzantine coins found at the site suggest that a settlement (though very much reduced) may have outlasted antiquity.

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OLIGARCHY

Rule by the "few"

Oligarchy ("rule by the few") was a fluid term that first emerged in 5th- and 4th-century BC Greek historical, political, and philosophical texts. In a precise context, oligarchy meant broad-based constitutional government by property owners of the Greek city states, who as exclusive citizens could both vote and hold office; but in a wider sense, oligarchs came to be identified as any group who, whether through legal means or by force, sought to check the power of democracy.

Government during the later Mycenaean period (1600–1200 BC) was dynastic, controlled by a king (*wanax*) who occupied a centralized fortified palace and its surrounding countryside. And while Linear B tablets reflect cadres of other high political officials, rule was clearly in the hands of a supreme chief who claimed power through inherited privileges.

Myths and stories found in later Greek literature give the impression that local chiefs (*basileis*) controlled tribal organizations during the Dark Ages (*c.*1200–700 BC). Power was probably in the hands of a single individual, and was passed on to male children. Whereas there were obviously a select few local princes who consulted the king, most government was not constitutional, but based largely on the ability of local potentates to muster subservient shepherds and farmers into successful military bands.

The emergence of more than 1000 Greek city states in the 8th century BC ushered in the first period of truly constitutional government in the Mediterranean – local communities were now often represented by independent landowners who sought political power commensurate with their hoplite infantry prowess and agricultural expertise. Yet, this transition from aristocratic government to rule by property owners was not automatic, but often characterized by periods of autocracy, as transitional tyrants for two or three generations – most often in the commercial, seafaring states near the isthmus or in the islands – might wrest control from noble families in the purported interest of the common people. In some areas of Greece – Thessaly and Sparta are good examples – vestiges of monarchy, coupled with consulting bodies of aristocratic families and supported by serfdom, continued for centuries.

By 700 BC many poleis were beginning to establish governments by property-owning citizens, which might constitute a third to half of the resident native-born male population. Aristotle later called such constitutions either "polities" ("polis governments") or "timocracies" – rule by those who enjoyed influence, prestige, and property. In fact, such timocratic governments were moderately oligarchic, allowing small landholders to vote on legislation proposed by elected senior officials.

By the 5th century BC the rights to participate in the assembly and hold office were extended to the landless poor at a few cities – most notably Athens – as part of a slow liberalizing Panhellenic trend that would be characterized by office-holding by lot, public works, navies, urban fortifications, and subsidized pay for jury service and assembly attendance. During the rise of democracy in the 5th century, the definition of oligarchy crystallized as a reactionary alternative to more egalitarian constitutions, and the two words democracy ("power of the people") and oligarchy ("power of the few") first appeared in the Greek language and in clear antithesis to each other.

In reality, it was often difficult to calibrate whether a city state was oligarchic or democratic, since most had councils and elective officials. Aristotle later attempted, without much success, in book 4 of his *Politics* to create a typology of constitutions, characterized by four variants of both oligarchic and democratic government. But "the few" and "the people" were relative terms – some "oligarchic" states might have very low property qualifications and a high percentage of citizen participation, while the offices of nominally "democratic" constitutions could de facto be staffed exclusively by more prosperous landholders.

By the late 5th and 4th centuries, and especially during the Peloponnesian War (431–404 BC), oligarchy took on a far more precise definition: rule of those with capital and in alliance with Sparta. Thus the great revolutions at Corfu and elsewhere during the war were not marked so much by disagreements over the voting franchise or the constitution per se, as by strife among larger landowners and businessmen against those without money. The former welcomed the intervention of Spartan infantry to protect their interests, the latter looked to the Athenian fleet to champion the cause of the poor, who saw democracy not so much as voting privileges but rather as entitlements and subsidies for the landless. Indeed, Aristotle

concluded that oligarchy had come to mean simply ''rule by the rich'', democracy ''rule by the poor''.

The defeat of Athens (404 BC) did not result in a spread of oligarchies championed by the victorious Spartans. Rather, the increasing monetarization of the Greek economy and the corruption of census rubrics brought on by the demands of the war led to a rise in democratic government. States in Boeotia and in the northern Peloponnese increasingly liberalized their constitutions to include participation by most native-born residents, and often gathered neighbouring communities into federal leagues under democratic auspices that would survive into Roman times. Coups by both radical and moderate oligarchs at Athens, Argos, and Mantineia were often shortlived. The harsh nature of Spartan hegemony, and the insular nature of Spartan society, did little to encourage a return among the city states to oligarchic rule.

Most Greek thinkers, themselves aristocrats, preferred moderate oligarchies, as consistent with the traditional values of the old agrarian polis, and a bulwark against the financial and cultural liberalism spawned by imperial Athens. Thucydides felt the brief rule of 5000 property owners at Athens in 411 was the best constitution in the history of the state. Aristotle lamented the passing of the rule of a middling agrarian population that had avoided the extremes of both reactionary autocracy and radical democracy. The so-called ''Old Oligarch'' – author of an anonymous 5th-century BC political tract – described the reckless dynamism of Athens largely in terms of its abandonment of traditional oligarchic restraint. Plato's political ideas are confusing; he clearly did not favour democracy but instead looked to government based on either natural or enforced hierarchies.

In the later 4th century BC the wealthy of the polis continued to yearn for government by the few, and now looked not to traditional oligarchies, but rather to the growth of Macedonian monarchy. Philip II and his son Alexander the Great sought to subsidize wealthy politicians in the Greek city states, promising local autonomy to oligarchic cadres who could maintain order, provide tribute, and furnish manpower for the Macedonian cause. The successors of Alexander in both Greece and Asia Minor continued to favour such oligarchies, which were increasingly narrow groups of wealthy urban elites, often absentee owners of estates in the countryside. Class strife in the ancient world is largely a Hellenistic phenomenon, and was waged by those dispossessed farmers who increasingly became the urban unemployed or rural serfs, and now lacked both the freedom and the rights that had existed under traditional oligarchy.

The nomenclature of Hellenistic government as it survives in the histories and on inscriptions is confused and often euphemistic. It can be assumed that reference to ''the people'' and ''the council'' usually meant a select few, who governed under the aegis of monarchy and on the basis of vast wealth. While there were still democratic councils among the federated leagues in Achaea and Aetolia, most city states were increasingly governed by elites owing allegiance to kings. Gone was any traditional idea of oligarchy as the rule by a substantial landowning minority of the town's residents, who were responsible entirely for a community's defence, foreign policy, and financial health. Popular rule in the Hellenistic age simply meant for most cities control by the indigenous rich in service to a foreign monarchy. No local oligarchies in the Hellenistic age enjoyed real autonomy.

After the Roman conquest of Greece (146 BC), most Hellenic provinces were run by local oligarchic councils who reported to a Roman executive proconsul. While deliberations were often by consensus vote, and while the language of constitutional government might suggest popular assemblies, in fact foreign executives, backed by the legions, retained the real power. In general, the Romans found that local elite oligarchies ensured that taxes were promptly paid and social unrest minimal.

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See also **Government**

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OLIVE

The olive is a fruit-bearing tree that is imbued with a symbolic meaning and a practical value that make it of pivotal importance to the understanding of everyday life in Greece, of the socioeconomic realities of the country, and of ritual practices, beliefs, and customs. The olive is the national tree of Greece, while olives and olive oil are its national products.

The olive is one of the oldest cultivated trees in the world. The Greeks were among the first to engage in its systematic cultivation, in the Early Bronze Age, that is in the 3rd millennium BC, though archaeological evidence reveals that olive-oil production started much later, in the Late Bronze Age. Its extraction was facilitated by the introduction of the lever press, which in various combinations remained in use up to the 20th century.

Olives constituted an important ingredient in the diet of the ancient Greeks. It has been suggested that a wealthy household would consume approximately 200–330 kg of olive oil per year. It had many uses, and in antiquity it was considered to be a ''luxury product''. It was first used as a perfume or as an essential substance in the production of perfumes and ointments for bodily care, probably because of its therapeutic and cleansing qualities. It was also often used as a means to heal maladies; Hippocrates, the father of medicine, suggested more than 60 uses of olive oil for healing purposes. From the 6th century BC onwards, olive oil was introduced to food and acquired great economic significance. At around the same time it was also increasingly used for lighting. Olive wood was employed for building and in the making of various artefacts. Occasionally olive kernels and wood were also used as fuel.

The olive tree is evergreen and is characterized by its longevity and durability. These three distinct characteristics earned it a central position in Greek religion. Moreover, its sacred symbolism was derived from the great economic importance of its fruits and their products. It is for this reason that the olive tree was considered to be the sacred tree of the goddess of wisdom, Athena, who was said to have created it on the Acropolis in her contest with the sea god Poseidon for the control of Attica. The olive branch was a symbol of peace and victory and at the Olympic Games olive wreaths adorned the heads of victors. Similarly, olive oil was given as a prize to the victorious athletes at the Panathenaic Games. Because of its symbolic value olive oil was frequently also used for ritual purposes. It was used to smear bodies before burial, offered in the form of libation to the dead and the gods, and fed the lamps in the temples.

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See also **Agriculture**

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OLYMPIA

Sanctuary in the Peloponnese

Olympia is situated in a valley at the confluence of the Alpheus and Cladeus rivers in Elis in the northwest of the Peloponnese. It attracted not only pilgrims and athletes to the sanctuary, but developed into a kind of fairground for traders, artists, and literary figures. Olympia at the time of the festival was said to be crowded, hot, noisy, and full of flies. There was a taboo against females, certainly married women, from participating in the festival. Girls, however, had their own festival there called the Heraia. The importance of Olympia, an otherwise insignificant place, may lie in its association with the cult of Zeus. Strabo also records that its reputation came from its oracle of the Earth Goddess.

The site was not identified during the Middle Ages, but was discovered by Chandler in 1766, albeit covered with some 4 m of alluvium from the changing courses of the rivers. French archaeologists under Maison started digging in 1829 and removed to the Louvre some of the metopes from the temple of Zeus. The later school of German archaeologists to work on this site include Curtius, Dörpfeld, Furtwängler, Kunze, Mallwitz, and Sinn. Many recent discoveries are changing traditional ideas about Olympia, especially dating.

The traditional belief is that there are Mycenaean remains as early as 1500 BC, that the first shrine to Zeus was built about 1000 BC, that athletics were first recorded in 776 BC, and that the games ended in AD 393 with the edict of the Christian emperor Theodosius I. Mallwitz, however, has argued that there is no convincing evidence for a Mycenaean sanctuary, but that Olympia became a sanctuary first in the 9th or 8th century BC and that athletics came later. The foundation date of 776 BC for the games is derived from the lost victory list of Hippias of Elis, but the archaeological evidence of the site, especially the appearance of wells in the eastern part near the stadium at the end of the 8th century BC, may point to a date closer to 700 BC. Recent inscriptions with the names of victors show that the games were still going strong in the 3rd and 4th centuries AD. Coins and other finds in the stadium seem to suggest that the games extended for at least a century longer than the traditional closing of AD 393, and that Christianity, far from destroying pagan cults, existed side by side with them.

The Altis was the walled, sacred area, a grove consisting largely of plane and olive trees. The chief shrine there was the great altar of Zeus, said to be 7 m high, but Olympia was not dedicated to Zeus alone, for Pausanias (5. 14. 4–10) records more than 70 altars in the Altis, although most of them are not directly connected to Zeus and the games, and very few of them can be located with any accuracy. The oldest shrine was that of Pelops. The major buildings in the historical period included the temple of Zeus, the temple of Hera, the precinct of the Earth Goddess, the precinct of Pelops, and the 12 treasuries, which were used by the city states as "bank vaults" and for the display of wealth. Outside the Altis *inter alia* were the council chamber for the Hellanodikai (officials and judges), the workshop of Phidias, and primitive bathing places. In the 4th century BC were added the Metroon, the Echo portico separating the Altis from the stadium, the Phillipeion erected by Philip II of Macedon (showing the political importance of Olympia), and outside the Altis the Leonidaion (the guest house) and southern portico. In the Hellenistic period the triumphal archway into the stadium from the Altis was built. Several baths date from the Roman period, as the site became more developed. A good water system was made possible by Herodes Atticus in the 2nd century AD with the construction of the monumental fountain known as the nymphaeum. A Christian basilica was built on the foundations of the workshop of Phidias. Other buildings are being discovered including the clubhouse in the southwestern corner of the site. The Altis was also used as a "Hall of Fame", where victorious athletes were allowed to set up statues of themselves. Bases of statues of Zeus (Zanes) were erected at the foot of the Hill of Cronus at the expense of athletes who had cheated.

Traces of three stadia remain to the east of the Altis on approximately the same site, a flat area at the foot of the Hill

of Cronus. Stadium I was partly within the Altis and dates from the Archaic period, though little is known about it. Stadium II, dating from the late 6th century BC, had artificial embankments for spectators on the north and south. Stadium III was more elaborate and was located about 75 m to the east with additional embankments on the east and west together with a judges' box. The altar of Demeter can still be seen in the stadium. The palaestra and gymnasium were added in the Hellenistic period, but it has recently been suggested that the gymnasium was used not for athletic training, but for cultural purposes. Nothing remains of the hippodrome, although its location between the stadium and the Alpheus river, the elaborate starting device in the shape of the prow of a ship, and other features are known from Pausanias (6. 20. 10–19).

The most famous work of art, the monumental statue of *Zeus* (more than 13 m high) was made of gold and ivory by Phidias, and was considered one of the seven wonders of the ancient world. It stood in the entrance to the Doric temple of Zeus built by Libon, but no longer survives, having been transported to Constantinople in the 4th century AD, where it was destroyed by fire. The museum sculptures include the pediments and metopes of the temple of Zeus, the colossal head of Hera, the *Nike* of Paeonius, the *Hermes* of Praxiteles, clay sculptures of the head of Athena and of Ganymede and Zeus, thousands of bronze statuettes, bronze sheets with reliefs, and various bronze weapons, architectural bronzes, and tripods (the most common votive offering at Olympia).

Olympia was partly destroyed by the invasion of the Heruli in the 3rd century AD and the later invasions of the Slavs. An earthquake in the 6th century destroyed the temple of Zeus and other buildings. The changing courses of the Alpheus and Cladeus have covered parts of the site, especially the hippodrome (still unexcavated). Today Olympia is a tourist attraction, with a museum area (originally founded in 1886, but now a modern building). The stadium, as we now see it, is based on the stadium as it was thought to be in the 2nd century AD, with start and finish lines visible about 200 m apart. It remains unimpressive to look at (by comparison with the stadium at Delphi) with grassy banks, dusty track, and no seats for spectators (as it probably was originally), and is totally unsuitable for modern sports. For every modern Olympiad the Olympic torch is ritually lit at the site of ancient Olympia.

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See also **Olympic Games**

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OLYMPIC GAMES

The Olympic Games were the principal athletic games in the ancient world. First recorded in 776 BC, they were banned in AD 393 but survived in some form until the early 6th century, and were revived as a global event in 1896.

Greek myth attributes the establishment of the Olympic Games to the Idaean Dactyls, the iron-working attendants of the mother goddess Adrasteia who are identified with the guardians of the infant Zeus, to Heracles, and to Pelops in celebration of his conquest of Oenomaus in a chariot race. The traditional date for their establishment in 776 BC may, therefore, indicate merely a revival, but nothing is known of their possible earlier history. They were held at Olympia, a sanctuary named for the presiding deity Zeus Olympios (i.e. of Mount Olympus). Although there is evidence at Olympia, in the western Peloponnese, for habitation from the Early Helladic period, in the Archaic, Classical, Hellenistic, and Roman periods it was only a sacred site (the altis) with an associated stadium and an increasing number of buildings for administration, training, and lodging. It was first under local Pisatan and from *c.*470 BC under Elean control.

In 776 BC the games consisted of no more than the stade race with athletes drawn from the surrounding area, the inaugural winner being traditionally a local baker, Coroebus. Other athletic events were added in the late 8th century BC, equestrian and boys' events in the 7th century BC, and further additions followed, including competitions for trumpeters and heralds in 396 BC. Many of the early victors were Spartan, but by the 6th century BC the games were truly Panhellenic, competitors travelling from all the Greek-speaking areas of the world and especially from southern Italy and Sicily. The games grew also in duration, from one day to six days in the Classical period. During the Hellenistic period there was no lessening of popularity, as Hellenistic monarchs vied with each other to add new

buildings. Although the Roman conquest initially involved a vast diminution in the games' prestige, they now become open to at least some non-Greeks (the last known victor, of boxing in AD 369, was Varazdates, the crown prince of Armenia). In the late 1st century BC, however, king Herod of Judaea became president of the games and by a huge endowment encouraged a revival that was continued by subsequent imperial patronage: Augustus' right-hand man Agrippa repaired the temple of Zeus and both Tiberius and Germanicus won chariot races, while at games postponed for his own convenience (held probably in AD 67) Nero competed in and fraudulently won various events (including chariot racing and some unique musical and literary competitions). Still very popular in the 2nd century AD, the games suffered during the uncertainty of the following century and the sanctuary had to be fortified *c.* AD 268 because of the threat of the marauding Heruli. Held every four years without intermission from 776 BC until AD 261, they may possibly have been held only sporadically thereafter. Despite St Paul's enthusiasm for athletics, the games' combination of nudity and paganism must have made the growing number of Christians agree with the words of St Cyprian: ''True Christians must shun with eyes and ears those vapid, dangerous, tasteless performances.'' They certainly would have come under the ban of the edict of Theodosius I in AD 393 that closed pagan cults and sites, but archaeological evidence suggests use of the stadium at Olympia until the early 6th century, and in some form they continued at Daphne, near Antioch, until AD 521.

Through most of their history they were the premier athletic festival. Next in rank were the Pythian Games, held quadrennially at Delphi in honour of Apollo and including many musical competitions, and the other two ''crown games'', the Nemean and the Isthmian, both held biennially in honour of Zeus and Poseidon respectively. The Olympic Games furthermore served as a model for many other festivals, some of which proudly proclaimed themselves ''isolympic''.

In the Classical period the first day of the celebrations was probably devoted to sacrifices, prayers, oath taking, and the checking of qualifications. Competition began on the second day. The sacrifice of 100 oxen (hecatomb) was the religious highlight of the third day, and the sixth day ended with further sacrifices and a celebratory banquet for the victors. In addition to the athletic competitions the festival gave visitors a huge fair with a wide array of entertainers, hucksters, and pickpockets.

Before the games Elean heralds proclaimed the Olympic Truce: this demanded safe conduct for all competitors and spectators travelling to and from Olympia and forbade any state to make war against the Eleans. Politics did, however, still intrude into the games, as Pheidon, tyrant of Argos, temporarily took over their organization in the early 7th century BC, and the Spartans turned the celebration of 428 BC into an anti-Athenian demonstration, while being themselves debarred from participation in 420 BC for their refusal to pay the fine imposed by Olympic law for attacking an Elean fortress.

Women, but according to Pausanias not girls, were banned even as spectators since athletes competed nude (there were separate games for girls held at Olympia in honour of Hera, but documentation is sparse). Athletes were required to train at home for at least ten months prior to the games, and during the 30 days of practising at Elis the poorest were weeded out by the judges since only the best would not do dishonour to Zeus. Judges were all Pisatan and later Elean and famous for their impartiality. Infringements of the rules for events resulted in beatings on the spot, disqualifications, and fines, the last of which were spent on statues (*Zanes*) erected in the sanctuary to give warning to others. Although prizes were merely garlands of wild olive, victors were generally richly rewarded by their home states. Since they could also win valuable prizes in kind and, increasingly in the Hellenistic period, monetary prizes at minor festivals, many were undoubtedly professional. Paid trainers became common from the 5th century BC and by *c.*50 BC athletes had formed their own trade union.

With the publication by the historian Timaeus, *c.*300 BC, of a synchronic list of Olympic victors (*Olympionikai*) the practice arose of dating other events by the Olympic quadrennia, Eratosthenes adding the refinement of subdivision into individual years (e.g. summer 774 to summer 773 BC is the third year of the first Olympiad). Despite problems of equating this system with the bewildering variety of other dating systems known in the Classical world, it survived well into the Byzantine period.

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See also **Olympia, Games and Sports**

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OLYMPUS, MOUNT

Mountain in Thessaly

Olympus is the highest mountain in Greece and the second highest in the Balkan peninsula. It bears the ancient name ''Thessalian Olympus'' and is the deified mountain bridging Thessaly and Macedonia. It occupies the northeastern part of Thessaly and the southwestern end of central Macedonia, and straddles the boundaries of the counties of Larissa (province of Elasson) and Pieria. The mountain is shaped like a vault, having at its peak a plateau, from which other peaks rise by more than 2500 m. Above a gorge, some 600 m deep, the peaks rise of Mytikas or Pantheon (2,917 m), Stefani or the Throne of Zeus (2,909 m), Skala (2,866 m), and Scholio (2,911 m), forming a semicircle.

Olympus is a large mountain covering a relatively small area. Its width from east to west is no more than 25 km, from north to south 28.5 km, its perimeter 150 km, and its area 500 sq km. It is distinguished by its pointed peaks, its lengthy ridges, and its steep slopes that are traversed by deep gorges. Its main body, known as High or Upper Olympus, is distinguished from Lower Olympus (of which some specialists consider it to be a

part) by the stream of Ziliana, the plain of Carya, and the river Elassonitiko.

The rock consists mainly of limestones and dolomites. From the streams that run down the mountain slopes only one has water throughout the year, the river Enipeas that passes through Litochoro; the rest are seasonal. The vegetation is limited. Typically alpine at 2,000 m and above, the lower zone is covered by forests, which in the higher regions consist of fir trees and in the lower of pines. The eastern side has more forests than the western. More than 1,700 plants have been registered in the area, i.e. about 25 per cent of the entire Greek flora. The fauna does not present any particular features. Some 32 different species of mammals have been identified as well as 108 bird species, while the mountain is famous for its many kinds of butterflies. In antiquity Pausanias reported the existence of lions on Olympus.

The climatic conditions are highly variable. At the foot of the mountain the climate is typically Mediterranean, while the northern and eastern slopes have greater rainfall. Average temperatures range from 0° to 20° C in the summer, and in the winter from (−20° to +10° C. The mountain is covered by snow for about seven months of the year, usually from November to May.

Historically Olympus has been the target of various expeditions and was known as an ideal place for hunting (e.g. by Sultan Mehmet IV). The botanists Theodor von Heldreich and Theodoros Orphanidis carried out a great deal of research on Olympus in the 19th century, while one ambitious expedition was undertaken by the German geographer H. Barth. In 1937 the first National Greek Forest Area was established on Olympus in order to protect the geomorphology, the fauna, and the flora of the mountain. Since 1981 this protected area has been incorporated in the ''Programme on Man and the Biosphere'' of UNESCO.

In ancient Greek mythology Olympus was considered to be the sacred mountain of Greece. After the victory of Zeus over the Titans, it came under the control of Zeus and became the home of the Olympian gods. Zeus' throne was believed to be at the highest peak, while the other gods resided on the surrounding ones. The mountain was also connected with Orpheus, who taught the Orphic mysteries and died there. It was also dedicated to the Olympian or Pierian Muses.

The name ''Olympus'' appears for the first time in the Orphic texts and is subsequently mentioned as such by all ancient Greek writers. It is generally held to be derived from a name used by the Aeolians, who lived on the western and southern shores of Asia Minor, and dates back to 1800 BC. The etymology of the word is uncertain.

Olympus was of great symbolic importance to the ancient Greeks. As the home of the gods, it symbolized immortality, high honour, and ideals. The epithet ''Olympian'' was given primarily to Zeus and thus signified grandeur and godliness. It occupied a central position in ancient Greek religion and cosmology, was connected with a specific philosophical world-view and attitude towards the world. The Olympian gods were the symbols of a particular *Weltanschauung*, which permeated ancient Greek culture as a whole. It is no wonder that, according to one view, while Delphi represented the *omphalos* (navel) of the earth, Olympus constituted its head (= mind).

In historical times the regions around Olympus were populated by various Greek tribes. Its mountainous routes were of the utmost importance during military expeditions, ranging from the period of the Persian Wars to the Roman conquest of Greece. At the foot of the mountain several significant cities were founded, including Dion and Pythion. The first human settlement on Olympus must have been established around 1000 BC near Hagios Vasileios and Mesonisi, where several tombs have been uncovered dating from 1000 to 700 BC. Further archaeological excavations and topographical research have unearthed numerous inscriptions, coins, and artefacts from various historical periods that point to relations with both Thessaly and Macedonia.

NEKTARIOS DROSOS

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OLYNTHUS

City in Chalcidice

Olynthus was located at the head of the Cassandra gulf on the Chalcidice peninsula, approximately 4 km inland from the sea. It was built on two flat-topped hills rising about 30–40 m above the surrounding plain. According to mythology, the city was named after Olynthus, a son of Heracles and Volve. Another myth refers to Olynthus as a son of the king of Thrace, Strymonas, who was killed during a lion hunt. Thus, Vraggas built the city of Olynthus to honour his brother's memory. The ending of the word Olynthus implies a pre-Hellenic provenance for it. Although the location of the city has been known since the 19th century, it was in the 1920s and 1930s that extensive excavations were carried out by the American Archaeological Mission led by David M. Robinson. The destruction of Olynthus in the mid-4th century BC has preserved a full ground plan as well as individual details of housing, providing unique information for the Classical Greek city.

In the Neolithic period a small settlement was established on the south hill of Olynthus, but Bronze Age remains are lacking. Occupation begins in about the 7th century BC. Herodotus (8. 127) and Thucydides (2. 99) reported that around 650 BC the district was inhabited by the Bottiaeans, a Thracian tribe, under whose rule the city of Olynthus remained until 479 BC.

Together with other towns in the area, Olynthus supplied troops and ships to Xerxes in 480 BC, while during the Persian retreat from Greece (479 BC) Artabazus besieged and captured the city, suspecting a revolt. He then slaughtered its inhabitants and handed Olynthus over to Critobulus of Torone. Around that time new settlers from nearby Chalcidian communities immigrated to Olynthus, which thus became a Chalcidian city.

By the mid-5th century BC Olynthus was a relatively small city. As a member of the Delian League, it paid on average 2 talents of tribute from 454 to 432 BC, much less than other neighbouring Chalcidian cities (e.g. Scione paid 9, Mende paid 8, Torone paid 6). The archaeological remains from this period down to the last third of the 5th century BC are exclusively concentrated on the south hill. Two streets ran roughly north–south along the east and west sides of the hill separated from the brow by one or two rows of rooms. Two cross-streets running east–west have also been excavated, while public buildings were located at the north end of the hill. Moreover, a section of the fortification wall was uncovered in this area.

In 432 BC, facing Athenian aggression, Perdiccas, king of Macedonia, persuaded the inhabitants of a number of coastal Chalcidian cities to move inland to Olynthus and to form a single fortified city (Thucydides, I. 58). This moving up (*anoikismos*) is thought to have given the impetus for the expansion of the old city of Olynthus to the flat-topped hill to the north, and for the laying out of a new grid-planned section of the city there. Olynthus thus became the chief city west of the Strymon and revolted against Athens.

The north hill was not inhabited until the *anoikismos* of 432 BC. This area, measuring 600 × 350 m, was laid out on an orthogonal plan, according to the Hippodamian town-planning system, with a few irregularities. Seven parallel "avenues" 5–7 m wide, running from north to south, were traversed by streets 5 m wide. Each of the blocks thus formed was 35.40 ¥ 86.34 m and usually included ten houses, grouped in two rows of five separated by a narrow alley. On the east side of the hill, however, the blocks were shortened to allow the roads to follow the topography of the hill.

The population of Olynthus numbered 15,000 inhabitants at the end of the 5th century BC. The houses at Olynthus, sometimes two-storeyed, were grouped around an open courtyard, with rooms on two or more sides. As in most ancient Greek houses, the courtyard was located in the southern part of the house with the portico and the main rooms to the north. The rooms had earth floors, unplastered walls, and very few or no features specifying their function. The houses at Olynthus are modest, lacking large common areas; exceptional are a few "villas" with mosaic floors which stood on the southeast slope of the hill (e.g. the Villa of Good Fortune, the House of the Comedian). Public buildings have been excavated both on the south and the north hills. The agora (marketplace) of Olynthus was located on the west side of the north hill and consisted of an open plaza (85 × 130 m), a stoa with shops, a building with a central colonnade (*bouleuterion*), and a fountain house. The three cemeteries of Olynthus were situated outside the city walls.

The city was fortified by a brick wall against which the first row of houses rested. Originally the city wall followed the contour of the hill. However, during the course of the 4th century BC, the city expanded to the east, creating a new suburb down on the plain. The agora occupied a free space where the old and the new settlements met.

The establishment of the Chalcidian League – a political union of certain cities of Chalcidice under the leadership of Olynthus – in 423 BC contributed substantially to the further development of the city. Following the end of the Peloponnesian War the development of the league was rapid. Around 390 BC it concluded a treaty with Amyntas, king of Macedonia, and by 382 it had extended its domination over the majority of Greek cities west of the Strymon and had even taken possession of Pella (Xenophon, *Hellenica*, 5. 2. 12). The league also issued its own coinage. In 382 BC Sparta was persuaded by an embassy from Acanthus and Apollonia, which was threatened by the rapid growth of the league, to send an expedition against Olynthus. Three years later (379 BC) the Lacedaemonians invaded Olynthus and the confederacy was dissolved. After the demise of Sparta, however, Olynthus reestablished a league with 32 cities and became very powerful.

When the war between Athens and Philip II broke out in 357 BC, both powers sued for alliance with the league. Olynthus was at first in alliance with Philip, who offered the fertile region of Mygdonia as well as Potidaea to the Chalcidian League (356 BC). Subsequently, alarmed at the growth of his power, the Olynthians dissolved their alliance with the Macedonians and concluded an alliance with Athens (352 BC). Philip used as a pretext the Olynthians' refusal to hand over his brothers Arrhidaeus and Menelaus, who had taken refuge in their city, and razed Olynthus to the ground and sold the people into slavery for having broken their oath as his allies (348 BC). Demosthenes, the Athenian orator, delivered three Olynthiac speeches, urging Athens to send forces to protect Chalcidice. By the time the Athenian fleet reached Chalcidice, Olynthus and other cities of the Chalcidian League were being besieged. Olynthus was partially reoccupied after 348 BC, but a few years later most of the survivors were sent by Cassander to settle in Cassandreia in 315 BC.

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ONOMASTICS

Onomastics is the study of names and naming practices. In this article, names are defined as personal names (place names are a different, though related and interesting, study), and Greek personal names are names borne by Greeks, whether in Greece

itself or elsewhere in the world where Greeks have settled. In antiquity, as today, that imposes a very wide geographical scope, for already by the 8th century BC Greek cities were sending colonies abroad, in a diaspora which would leave Greeks settled on the Black Sea, in Asia Minor, north Africa, Sicily, south Italy, and beyond. Names always reflect the concerns and values of society, and are responsive to political, cultural, and religious influences. Changes over time are to be expected, but it is important also to register that there have always been regional variations, at any one time, within the Greek-speaking world.

Modern interest in the collection and study of ancient Greek personal names began in the early 19th century. Almost all the evidence available at that time came from literature, which, even when it includes historical works, can paint only a partial picture of a society. The picture, however, was about to be transformed by the discovery and publication of documentary evidence provided by inscriptions, papyri (for Graeco-Roman Egypt), coins, and artefacts. Documentary evidence is important because it gives the names of relatively ordinary people, and because it is found in all parts of the Greek world, and not just the main centres of literary output, above all Athens.

Inscriptions on stone, by far the greater part of documentary evidence, record citizen lists, decrees, treaties, and judgements but also the more personal tombstones, religious dedications and curses, and the manumissions of slaves. New documentary evidence continues to be discovered, published, and analysed, but it is already clear that the names of upwards of half a million individuals have survived, and tens of thousands of different names. From the 8th century BC the volume of documentary texts increased steadily, reaching its first peak in the Hellenistic age. It is during this period that the fundamental features of ancient Greek naming practices can be observed and documented. It is, however, worth noting that two earlier sources, Mycenaean texts and the Homeric poems, push back the history of Greek onomastics, albeit partially, by a further 500 years.

Dating mainly from the 13th century BC, and written in Linear B, a pre-alphabetic script comprising ideograms, numerals, and syllabic signs, Mycenaean records have been found at Mycenae, Thebes, Tiryns, and Pylos on the mainland, and Knossos and Cydonia in Crete. There are many uncertainties in interpreting the names in these documents, because the spelling is ambiguous and because, being inventories, they supply no context, but Mycenologists are agreed that the basic formations of Greek names as described below were already in place, including familiar names such as Theodora and Alexandra. The same is true of the Homeric epic poems, the *Iliad* and the *Odyssey*, which are generally agreed to be the culmination of an oral tradition which may reach back to the 13th century BC. It is, however, interesting to note that the names of the main actors in the drama – Priam, Hector, Agamemnon, Menelaus, Helen, Cassandra, Odysseus, Penelope – thought of today as among the most famous of "Greek" names, did not continue in use in the Archaic and Classical periods. They enjoyed a revival under the Roman empire, especially outside Greece, in Italy and in parts of Asia Minor.

Greek naming conformed to the Indo-European pattern found throughout most of Europe until relatively recent times, by which a child received one given name. In public contexts, and for legal purposes, the given name was followed by the name of the father (patronymic), very rarely by that of the mother (metronymic). In certain circumstances, an indication of citizenship (ethnic) would also be given. These three elements – given name, patronymic, and ethnic – are the fundamental elements of nomenclature. The last two are also the building blocks of a much later development, family names or surnames.

In antiquity, as today, there was a tradition of naming the firstborn son after the paternal grandfather, and the second after the maternal grandfather (there is less ancient evidence for the naming of daughters). In leading families whose tenure of public office is recorded, it is sometimes possible to trace this pattern over two or three hundred years. Conservatism in name-giving ensured the preservation of names even after the concepts embodied in them had passed away, sometimes against the tide of new forces.

The patronymic generally took the form of the father's name in the genitive case (thus, Alexandros Philippou); but in areas of the Aeolic dialect (especially Lesbos and the facing coast of Asia Minor, and Thessaly and Boeotia on the mainland) the patronymic adjective was used (and applied to wives as well as children), formed by making an adjective out of the father's name. This usage was common in Homer (e.g. Ajax Telamonios, Ajax the son of Telamon); a second form found in Homer, in which the father's name is given a termination with patronymic force *-ides* (Hector Priamides, Hector son of Priam), survived in the historical period, for example Simonides and Bacchylides, but as an independent form deprived of patronymic force.

While the patronymic was important in identifying and sometimes legitimizing the individual, its use varied according to place and context. The 2nd-century AD writer Pausanias (2. 7) commented that the citizens of Sicyon in the Peloponnese recorded on their tombstones the name but not the patronymic of the deceased. From this statement it might be inferred that the use of the patronymic was standard everywhere else, but tombstones, which survive in their thousands, show that in most parts of western Greece and in Boeotia the patronymic was not generally recorded, while in nearby Thessaly it usually was.

Use of the ethnic also varied, according to context. The purpose of nomenclature is to identify, and at home an individual did not need to indicate origin. The city or regional ethnic was, therefore, used only when abroad. By contrast, in a city with an internal political organization of demes, such as Athens, Rhodes, or Eretria in Euboea, the demotic was given. At Athens, in the late 6th century, Cleisthenes' reforms required that the demotic should replace the patronymic (*Athenaion Politeia*, 11. 4), but by the 4th century it had become standard practice to give both. Thus, at Athens, "Alcibiades son of Cleinias, of the deme Scambonidai", abroad "Alcibiades son of Cleinias, of Athens".

The Greek grammarians knew two ways of classifying names. They were either "simple" or "compound" in formation, and, as to content, they were either based on the names of gods, "theophoric", or they were secular.

Simple names consisted of a noun or adjective, alone or with a suffix: for example, from the adjective *aristos* ("excellent", "best"), the names Aristos, Arist-ion, Arist-ullos, etc., feminine Arista, Aristo, Arist-ulla, etc. Compound names were formed by combining nouns, adjectives, verbs, or adverbs in various patterns. Thus, Aristo-teles, Arist-ippos, Aristo-kles, Aristo-boulos,

Aristo-damos. The order could be reversed: Aristo-nikos or Nik-aristos. Compounds were often turned into a so-called "hypocoristic" form which could be shorter (for example, Kleommas from Kleomachos) or longer (Sophroniskos from Sophron). Women's names could take neuter as well as feminine terminations, and covered broadly the same range of form and content as men's, including military and political connotations, for example Alexandra, Stratippa, Demostrata. Abstract names such as Harmonia ("harmony"), Eukarpia ("fertility"), Glukera ("sweet") did exist, but seem to have originated as slave names.

Within these broad rules, the Greeks showed almost limitless inventiveness; some components, such as *polis* ("city") appear in more than 50 different forms. The following are just a few examples: parts of the body (*kephalos* "head", making Kephalos, Kephal-ion), animals (*leon*, "lion", making Leon, feminine Leaina, Leont-iskos, Aristo-leon; *hippos*, "horse", making Hippo-stratos, Strat-ippos, Hippo-krates, Krat-ippos, Fil-ippos), plants (*ampelos*, "vine", making Ampelos, Ampel-ion, Ampel-ides), political institutions (*demos*, "sovereign people", making Demo-sthenes, Demo-stratos, Arche-demos, Dem-archos), defence or protection (the verb *alexo* making Alex-andros, Alexi-demos, Alexi-polis). Though usually laudatory, attributes could also be (at least to us) pejorative, and yet were passed down from generation to generation: thus, *aischros*, "ugly", making Aischr-ion, Aischr-a, *gaster*, "stomach", making Gastron.

Theophoric names could take the adjectival or the compound form. The most common of all Greek names were the adjectival forms based on Apollo (Apollonios), Dionysos (Dionysios), and Demeter (Demetrios); but a greater range was provided by compounds in which the name of the god was followed by *-genes/geneia* (birth), *-dotos/dota* and *-doros/dora* (giving/gift), *-philos/phila* (loved/loving), *-kles/kleia* (renown), *-phanes/phaneia* (manifestation), etc. Thus, from Zeus, root Dio-, Dio-genes/Dio-geneia, Dio-dotos, Dio-doros, Dio-philos Dio-kles/Dio-kleia, etc.

Theophoric names could be formed from cult titles of gods, and from lesser deities such as nymphs and river gods; the river Asopus in Boeotia, for example, gave rise to names such as Asop-ios and Asopodoros, which are found only in Boeotia and Athens. There was also the generic type from *theos* ("god"): Theo-genes, Theo-dotos, Theo-doros, Theo-kles, etc. The arrival of new divinities was duly marked in nomenclature; thus, from the late 4th century BC, worship of the Egyptian goddess Isis gave rise to Isi-doros, Isi-dotos, Isi-genes, etc., that of the god Sarapis (later spelling Serapis) to Sarap-ion, Sarap-ias, Sarap-is, etc.

The first major disturbance to the pattern of Greek nomenclature came with the arrival of the Romans who had a wholly different system of nomenclature, with three names, *praenomen*, *nomen*, and *cognomen*. After the Romans conquered Greece, Greeks receiving Roman citizenship would adopt the *praenomen* and *nomen* of the donor (a conquering general, later the emperor or a governor); in this way, names like Julius and Flavius first made their way into Greek nomenclature. The third name, the *cognomen*, was usually Greek: thus, Tiberius Julius Alexander, Titus Flavius Alcibiades. The Romans indicated filiation in a brief formula which came between the *nomen* and the *cognomen*: for example, G(aius) Julius G(aii) f(ilius) Caesar. Greeks sometimes adopted this system, but often simply appended the patronymic to the *cognomen*. A new name-form developed, especially in Asia Minor, with the suffix *-ianus* (e.g. Herodianus from Herodes) which sometimes gave the name a patronymic force.

Christianity was destined to make a permanent impact on Greek nomenclature, but the change was neither sudden nor simple. Several different currents fed into the main stream. Some "Christian" names were in fact Jewish, for example John (Joannes), Anna, and Maria. In time, but not much before the 4th century, names incorporating new values appeared, such as Eusebius and Euphemia. Of the old names, the neutral theophoric names such as Theodora and Theophilos were retained, and some new compounds formed which had not occurred before, such as Theo-doulos (slave or servant of God), comparable to Christo-doulos (servant of Christ). More potent factors were at work, however. The appeal to parents by the 4th-century writer John Chrysostom to name their children after saints and not ancestors is a reminder of the inherent conservatism of naming, but also a background for the renewal of old pagan names with a new authority. Saints and martyrs were as likely as not to bear "pagan" names such as Demetrius, Dionysia, and Alexandra.

During and after the struggle between Christianity and paganism, Roman names, by now absorbed into Greek nomenclature, continued in general use. After AD 212, when citizenship was granted to all free inhabitants of the empire, Aurelius was the normal *nomen*; after the reign of Constantine (whose own name became a common "Christian" name after his conversion to Christianity), it was Flavius. In the correspondence of Libanius, in the 4th century, the names of recipients show a mixture of Roman names such as Marcus, Proclus, Modestus, Priscianus, and Ioulianus; old Greek names such as Andronikos, Alexandros, Dionysios, and Leontios; and a certain number of distinctly Christian names such as Eusebius, Eustathius, Euphemius, and Ambrosius. A century later, in the correspondence of the Christian Isidorus of Pelusium, Christian names such as Eulogius, Eulampius, Cyrillus, and Serenus account for a greater proportion, but there are also surprising survivals such as Isidorus, Serapion, and Apollonius. Overall, by this period, a general simplification in nomenclature had taken place, the patronymic had largely disappeared, and the ethnic fallen into disuse.

ELAINE MATTHEWS

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ORACLES

Oracles were both utterances of (usually) gods, with or without an intermediary and in response to human questions, and the places where such utterances were made. At reputedly the oldest Greek oracular site, that of Zeus at Dodona in Epirus, the god was believed to make his response known through the rustling of the leaves of a sacred (probably Valonia) oak or the cooing of a dove (probably a ring-dove) perched there, which signs were interpreted by priests. By the 5th century BC, however, priestesses (later at least called "Doves") under the inspiration of Zeus simply gave affirmative or negative responses to questions scratched by enquirers on lead tablets, of which about 80 still survive (the most legible is in the museum at nearby Ioannina).

Far more is known about the oracle of Apollo at Delphi, which probably originated in the late 9th century BC (references to an earlier oracle of another deity on the site are subject to much modern debate). After a possible stage when its oracles, similarly to those at Dodona, merely involved interpretations of the rustling of the leaves of a laurel tree, already at the beginning of the Archaic age a local woman known as the Pythia was believed to act in a trance as Apollo's mouthpiece.

The procedure was as follows. Originally just once a year (according to Plutarch, *Moralia*, 292e), on Apollo's birthday, but from perhaps the 6th century BC on the seventh day of every month (except for the three months of winter when Apollo was believed to be among the Hyperboreans), consultation could take place, provided that the ominous behaviour of a goat sprinkled with cold water was favourable. Authorities (the Delphic Amphictiony) gave precedence first to Delphians and then favoured states and individuals. This was presumably often won by such costly gifts (most notably by the Lydian king Croesus) that some states even built treasuries at Delphi to house them (the best-preserved today is that of the Athenians). All enquirers had first to place on an altar an inordinately expensive cake (*pelanos*) as fee. Accompanied by the resident representative of his city (*proxenos*), the enquirer passed over the threshold of the temple, made blood-sacrifices, and entered the inner sanctuary, where he kept silence as a priest (*prophetes*) put the previously supplied question to the unseen Pythia, who was seated upon a tripod, and converted her response into intelligible, though often ambiguous, hexameters. The geology of the site and toxicology respectively prove untenable the ancient reports that the Pythia's trance was induced by mephitic vapours emanating from a chasm or by the properties of laurel leaves: it was probably merely self-induced by an uneducated and pious old woman of great religious susceptibility. The *prophetes*, we may assume, formulated responses on the bases of common sense, the desires of the enquirers, and Delphic interests (although the "Medizing of Apollo" during the Persian Wars has been much exaggerated, the oracle did later fall under the influence of both Philip of Macedon and the Aetolian League). A much cheaper and more common form of oracle at Delphi, and one that came to be practised on other days of the month, was cleromancy, by which one of two presumably differently coloured beans was drawn to give an answer of "yes" or "no".

Despite rivals, most notably the oracles of Zeus at Dodona and, from the 5th century BC, Ammon at Siwa in the Egyptian desert, the most famous oracle in the Archaic and Classical ages was that at Delphi. Although the vast majority of consultants were individuals, it played also a prominent political role (Sparta even maintained a standing commission of ambassadors called Pythii to transact Delphic business). Some evidence suggests that in early times it was consulted over the removal of unpopular rulers, but later it was never involved in internal politics. Although its public importance became most apparent in the belief of virtually all states that Apollo's approval was essential in the planting of colonies, it also both pronounced on the advisability of waging war and was involved in arbitration between states. In the 4th century BC, however, most public consultations were on cultic matters, and even these became rare after *c.*300 BC. In the Hellenistic period its functions were largely lost in the revival of local oracles, especially those of Asia Minor. Quintus Fabius Pictor enquired of Delphi in 216 BC about the proper rituals for ensuring victory over the Carthaginians, but after the Punic Wars the Romans usually had sufficient confidence in their own abilities to dispense with Greek oracular aid including Delphi's.

Other oracles offered a considerable variety in consultative practices, including the use of male spokesmen for the god, such as the *thespiodos* of Apollo's shrine at Claros in Asia Minor who drank from a sacred spring. At some sanctuaries priests interpreted "divine" signs such as those apparent in the flames (empyromancy) on Zeus' altar at Olympia. There were also oracles that dispensed with intermediaries, often giving their answers by lot (as with the beans at Delphi) and even dice but most notably by means of incubation, which was practised most commonly by those suffering from disease, insanity, or injury. In this, during a ritual sleep at a sanctuary, consultants were believed either to be healed by a god (often Asclepius) with or without divine helpers or sent a dream that prescribed treatment (Aristophanes describes in detail one such night at the Asclepieum in the Piraeus at *Plutus*, 653–747). Physicians were frequently in attendance subsequently to effect the cure. A bizarre, unmediated but non-medical parallel is afforded by the oracle of Trophonius at Lebadea in western Boeotia. Here the enquirer, after lengthy and elaborate preliminaries, had to thrust himself into a claustrophobic subterranean pit, where the

chthonic deity made revelations to him and whence he emerged terrified and barely conscious to be questioned by priests and restored to sanity by relations (graphically described by Pausanias, 9. 39. 5–14).

Although Plutarch (d. after AD 120), himself a priest at Delphi for the last 30 years of his life, wrote on the decline of oracles (*De Defectu Oraculorum*, *Moralia* 409e–438e), inscriptions from the 2nd and 3rd centuries AD on the building of the oracle of Apollo at Claras prove its continued popularity for public consultations by neighbouring states. During this period too various charlatans sought to exploit human gullibility by oracle-mongering. The most notorious of these was Alexander of Abonuteichos in Paphlagonia, whose tricks, involving a live snake apparently attached to a lifelike artificial head (whose jaws he could manipulate) and a hot needle to remove the wax seals of consultants' written questions, are hilariously excoriated by Lucian (*Alexander* or *False Prophet*).

Some well-established pagan oracles certainly survived into the early Byzantine period (the emperor Julian consulted several, including Delphi and Dodona, before embarking on his war against the Sassanian Persians). However, their anti-Christian utterances, many of which had been collected by the Neoplatonist Porphyry in his lost *On the Philosophy of the Oracles*, hastened their suppression. Christians associated them with demons and witches, built churches on their sites, and even forged oracles, such as one of Apollo confessing that his temple at Cyzicus was now the home of the Theotokos. Although Constantine I closed the Asclepieum at Aegae in Cilicia, pagan incubation survived into the 5th century AD, and the practice itself continued throughout the Byzantine period (and has not completely died out today), Christian saints simply supplanting the older gods.

During their heyday the authority of oracles was such that no certain case of disobedience is known. Even among philosophers only the Epicureans denied their claims. Nevertheless, since typically an oracle did not initiate action but either merely expressed approval or disapproval or chose between alternatives put to it by consultants, it could be manipulated into giving apparent blessing to a dubious enterprise. Even the pious Xenophon was chided by Socrates for asking Apollo to which gods he should sacrifice before setting out as a mercenary on the expedition of Cyrus instead of enquiring if he should join it at all (*Anabasis*, 3. 1. 5–7). Bribery was also practised, but not as often as ancient authorities claim.

Collections of oracles had less authority except in the case of the most famous, the Sibylline oracles. Originally a single prophetess, the word sibyl (probably not Hellenic and therefore suggesting the existence of pre-Greek prophetesses) had become at least by the 4th century BC a generic term for such women throughout the Greek world and later beyond. They were believed to prophesy in the normal manner either under the influence of a god (Apollo for Virgil's sibyl in *Aeneid* 6) or through their own inspiration. Collections are first heard of in connection with the books offered to Tarquinius Priscus (traditionally king of Rome 616–579 BC), the last three of which he bought and had preserved in his new temple of Capitoline Jupiter. Upon its destruction in 83 BC a collection was made from scattered copies, and this was still being consulted as late as AD 363. The surviving Sibylline oracles, in Greek hexameters, date from the 2nd century BC to the 7th century AD and are of mainly Jewish origin with some pagan and some Christian material, which last claims the Sybil as an independent witness to the Christian faith, supports Christian morality, attacks paganism, and prophesies the suppression of certain pagan cults.

The Chaldaean oracles, again written in hexameters and surviving only in fragments, were traditionally ascribed to a father and son named Julian in the 2nd century AD. These offered a philosophical guide to how in a dualistic world believers might empty themselves of evil matter to ascend to a triune deity consisting of a monadic Paternal Intellect, a dyadic Second Intellect, and the Cosmic Soul, which was identified as Hecate. They were much used by the Neoplatonists (especially Porphyry and Iamblichus), fascinated Psellos in the 11th century and were known to Plethon in the 15th.

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See also **Divination; Necromancy**

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ORAL TRADITION

Oral tradition, since it is by definition not fixed by writing or recording, is continually in a state of change: rather like language itself, it is transmitted from person to person and created afresh in the course of every such transmission. There are two indirect routes to knowledge of oral tradition before our own day. The first is by way of authors who explicitly record tales or literature that reached them by word of mouth, or who depict the performance of oral texts. The second is by way of literature that we may judge for stylistic or comparative reasons to have oral origins.

Thus, although the oral literature and history of early Greece are unknowable to us by any direct means – we can have no real evidence that precedes the first written texts, those of Hesiod, Homer, and Archilochus – all three of these still have much to tell us, indirectly, of the oral literary milieux from which they evidently derive.

Hesiod tells us (*Works and Days*) of his victory in a poetry competition in the course of funeral games; it has been supposed that the *Theogony*, his other surviving genuine work, was the winning poem. Evidently other winning poems, in other similar competitions, were not necessarily written down. It has also been hypothesized that the Homeric poems were composed for competitive performance of a similar kind. Hesiod describes the origin of his poetic inspiration as a gift by the Muses; this is typical of the solutions offered by oral poets for the difficult question why some people are able to compose long narrative poems while others are not. His livelihood as a farmer – if we accept the autobiographical framework of *Works and Days* as true to life – is by no means unusual for epic poets in other cultures.

The two great Homeric epics say nothing at all about their own origin, except for brief invocations of a "goddess" or Muse. It was traditionally held, in later Greece, that they were composed for oral performance. Many have thought that the repeated scenes in the *Odyssey* in which singers perform at feasts are depictions of how the two epics themselves were performed. The use of stylized and repetitious formulas throughout these epics was imitated, with varying accuracy, by later authors of Greek and Latin literary epics, but it was viewed as little more than a curious quirk of the Homeric style until, in the 1930s, Milman Parry showed that these formulas were the building blocks with which long oral narrative poetry is typically, and necessarily, composed.

Parry's demonstration drew on his fieldwork among the oral epic poets of modern Bosnia. Equally important for those who wish to use the Homeric poems as historical sources was the evidence gathered by Parry and his co-worker, Albert Lord, demonstrating the rapid transformation of epic poems in the course of successive performances. It has been gradually accepted that poems recorded in the 8th century BC (or the 7th, as many now believe) could scarcely retain any accurate and identifiable historical detail concerning events of around 1200 BC, the traditional dating of the fall of Troy. The language and the social background would also predominantly reflect the period at which the epics were recorded.

In 5th- and 4th-century BC Greece the *Iliad* and *Odyssey* had become classics, learned by heart by many schoolboys. There were professional reciters whose business was to perform Homer; the main character of Plato's *Ion* is in this trade. Traditions of that kind can continue for a long time: the Sanskrit poems of the *Rig Veda* were transmitted similarly for many hundreds of years. In its fundamental aims, of accurate recitation and literal transmission, such a tradition differs entirely from those in which oral epics were originally composed.

The earliest non-epic Greek poetry now surviving is that of Archilochus. His iambic poems, and those of Hipponax, belong to a tradition of ritualized insult and obscenity that is not visible in the Homeric poems but for which there is some independent evidence from Classical Greece.

The Homeric poems do depict oral performances in various lyric genres that were soon to turn into written literature. The mythological and praise poetry of athletic games and banquets, as described in the *Odyssey*, may seem closer in style and occasion to that of Simonides and Pindar than to that of Homer himself. Wedding songs, depicted in the *Iliad*, are recorded in writing from Sappho onwards. Funeral laments are also described in the *Iliad* and *Odyssey*, and these have been a major genre of Greek oral poetry at many later periods. Working songs, too, have remained a feature of oral tradition: some later ones, such as the Rhodian "Swallow song", are directly recorded in Classical texts.

Thus, between 700 and 550 BC many poetic genres were turned over to literary composition and written transmission. In the 5th century BC prose was to follow. The sources of Herodotus' information, and of Thucydides', were almost wholly oral, the reliability of their narratives naturally varying – as oral tradition generally does – with the length of the period over which the information had been transmitted. History, from this point onwards, was written; records of local and genealogical history, in particular, help to show us how much had until then depended on oral transmission and collective memory. What of the stories of the gods? Greek mythological storytelling, although serving as a source for Hesiod, Homer, Pindar, and many other poets, may always have existed as a prose genre and as such remained essentially oral. Its wealth, even in Roman times, can be judged from the rich records of local mythology gathered by the scholar Pausanias of the 2nd century AD. A storyteller depicted in Longus' *Daphnis and Chloe*, a novel of about the same date, told an apposite mythological tale to the two lovers, and was rewarded for it (generously!) with a kid.

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ORCHOMENUS

City in Boeotia

Orchomenus, cited by Homer as a paradigm of a wealthy city (*Iliad*, 9. 381), is often qualified as Minyan. The eponym Minyas is a shadowy, almost non-existent figure, but the place was real enough, and its reputation justified, at least in the Mycenaean period.

Situated in the northwest corner of the Copais, Orchomenus dominated the whole of this quadrant of Boeotia. Settlement was more or less constant from the Neolithic period. The most striking surviving monument is the Mycenaean tholos tomb (14 m in diameter) called the Treasury of Minyas. Also from the Mycenaean period isolated finds of pottery and fresco fragments have been found on the lower slope of the hill into which the tholos tomb was set. From the area of the convent east of the tomb have come numerous wall painting fragments. The economy of Mycenaean Orchomenus seems to have depended on crops grown in the Copaic basin. The Mycenaeans – like their British successors of the 19th century AD – constructed a system of hydraulic works to control the waters flowing into the basin in order to render the larger part of it free for cultivation. The canals were directed to a number of swallow holes – *katavothrai* – on the eastern shore and in the northeast corner of the Copais, which was protected there by the island fortress of Gla, which was both a control point – since the northeast bay of the Copais is the only part of the basin not visible from Orchomenus – and a refuge. Gla was abandoned at the end of Late Helladic IIIB. This suggests that the drainage works of Minyan Orchomenus were no longer functioning, the bureaucracy which maintained them having broken down. Nothing is known about relations between Mycenaean Thebes and Mycenaean Orchomenus: the legends concerning the war between Orchomenus and Thebes are more likely to reflect events during the 6th century BC than those of the Bronze Age.

In Archaic Boeotia there were still two major spheres of influence, one around the western half of the Copais under Orchomenus, the other covering the rest of the territory and more loosely tied, with no obvious dominant state. The power and influence of Orchomenus in the Archaic period may be reflected in the tradition that Orchomenus was a member of the Calaureian Amphictiony. This association was based at a sanctuary of Poseidon on the island of Calaureia (Poros) in the Saronic Gulf, for which evidence goes back to the 7th century BC. Eventually, Orchomenus, as it tried to extend its control to the east, and Thebes, moving westward, ran into each other, the result being the confirmation of Theban supremacy over the rest of Boeotia. This was assured by the fourth quarter of the 6th century, and is reflected not only in the literary traditions, but in contemporary inscriptions.

However, the new Boeotian League which emerged towards the end of the 6th century under the leadership of Thebes was by no means an autocratic association. One sign of this is the appearance late in the century of a distinctive Boeotian coinage, which means that there was not only an accepted common standard, but also a common economic policy. That the policy was consensual is shown by the facts that not only Thebes but at least nine other member states had their own mints, and that Orchomenus, although reduced, was allowed to issue its own small denomination coinage with a distinctive symbol of grain(s) of corn on the obverse, rather than the otherwise general Boeotian shield.

During the Persian invasion of 480/79 BC, Orchomenus joined Thebes and most of the rest of Boeotia in Medizing. In the period after the Battles of Tanagra and Oenophyta (456 BC), when Athens dominated Boeotian affairs, Orchomenus may have been a member of the Delian League, but by 446 it had become a place of refuge for disaffected Boeotians of the oligarchic persuasion, who eventually defeated an Athenian force at nearby Coronea and threw the Athenians out of Boeotia.

Orchomenians fought on the left wing in the victorious battle of Delion (424), but it appears that, as the 5th century drew to its close, Orchomenus was being gradually stripped of its power and influence, with Thebes growing progressively more dominant within the Boeotian League. By the end of the century Orchomenus had lost control of Chaeronea and Lebadea, and was contributing only two of the 11 federal Boiotarchs.

It is not surprising that Orchomenus became a centre for anti-Theban sentiment. During the Corinthian war (which began in 395) it seceded to Sparta, and was protected by a Spartan garrison until at least 375. After the King's Peace (387/86 BC) Orchomenus, like the other poleis of Boeotia, formally regained its independence.

After the expulsion of the Spartan garrison from Thebes in 379/78, the Thebans gradually re-established themselves as the dominant power of Boeotia, and confirmed their status at the battle of Leuctra (371 BC). The Theban-led Boeotian League established the Basileia, games in honour of Zeus Basileus at Lebadea, which had formerly been dependent on Orchomenus. This Zeus was the original patron deity of Orchomenus, and the location of his sanctuary on the hill of Profitis Elias was an open provocation to the Orchomenians, and a public proclamation to all who passed by – since the hill is clearly visible from the road to Delphi – of the political pretensions of the Boiotoi, that is, the Thebans. The Thebans went even further, and in 364 razed Orchomenus.

This destruction was not permanent, as Theban power waned after the death of Epaminondas, and hostility between Thebes and Phocis drew closer to open warfare. Orchomenus was functioning again as early as 359 BC, and during the Third Sacred War it was mostly in the hands of the Phocians. But at the end of this war (346 BC) Philip II of Macedon handed Orchomenus back to Thebes, when it seems to have been destroyed and the population dispersed.

However, after Chaeronea (338), Philip restored the city, and Alexander the Great even commissioned an engineer (Crates) to drain the Copais, but this enterprise was not completed, and Orchomenus never really recovered its former stature. During the Hellenistic period it fell upon bad times, was compelled to borrow money – which it had difficulty repaying – and relied increasingly on the generosity of individual citizens for its public operations. It is clear that under the Romans Orchomenus had shrunk to the status of a village, which indeed it has remained until relatively recently.

After antiquity, settlement persisted at the foot of the hill Akontion, focusing on the villages of Skripou and Petromagoula (now joined into one and called Orchomenus). The outstanding monument surviving from this period is the church of the former convent of the Koimisis tis Theotokou (AD 874), one of the earliest cruciform churches in Greece. Its builders used blocks from an ancient temple and the nearby theatre (4th–3rd centuries BC).

Aside from the tholos tomb, theatre, and church, the most impressive remains are traces of city walls on the Akontion hill and, on the acropolis proper, fortifications built by the Macedonians late in the 4th century BC. No certain trace has been found of a Mycenaean palace, or of the sanctuary of the Charites – the Graces – whose cult Pindar mentions in *Olympian* 14, nor of the supposed tomb of Hesiod.

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ORGIASTIC CULTS

The term *orgia* designated certain ceremonies and religious rites, with particular reference to initiation into a specific cult. Usually there were secret rites that had a symbolic function. The term "mystery" is also used. As Walter Burkert remarks, ancient mysteries were a kind of personal religion, since the initiation depended upon a person's decision to participate in a cult, and its practice enforced hope and belief in prosperity and future life. Such cults usually consisted of a variety of activities, such as purifications, processions, sacrifices, and dramatic enactments. The word mystery (*mysterion* in Greek) comes from the verb *myein*, meaning "to close". The *mystai*, those who participated, were required to keep their mouth closed and not to reveal secrets to those who had not been initiated. The word "orgiastic" in its modern sense probably best describes certain cults, particularly towards the end of the Hellenistic time, when a fusion of religions from various origins took place. The most important cults of this kind were Eleusinia, Thesmophoria, Dionysia, Orphica, Cabeiria, and mysteries for the worship of Cybele, Isis, and Sabazius.

The general idea of passing beyond the limits of morality in as many directions as possible lies behind the existence and performance of many orgiastic cults. Moreover, the psychological need to ritualize all possible polarities of human nature, so as not to be excluded from a community but rather belong to one, is another factor that explains the wide reception they had in antiquity. Herodotus (8. 65) speaks of 30,000 people attending mysteries. The roots of many orgiastic cults are hidden in the mists of prehistory, since they developed from rural festivals that celebrated the power of nature and fertility. The notions of death and resurrection are associated with many principal figures of the mysteries, for example, Dionysus, Persephone, Adonis, Attis, Osiris, and the Mithraic bull.

The Eleusinia were a mystic cult centred around the myth of the rape of Persephone, daughter of Demeter, by Hades, and the search of the mother for her daughter. The explanation of the natural phenomena and the human hope for rich agricultural production and fertility were treated in a symbolic manner. A series of purification rites took place. Many citizens of Athens were initiated in these mysteries, and although there is some uncertainty as to what went on, there are plenty of literary and archaeological sources to help us reconstruct the image of the Eleusinian mysteries. They continued to exist throughout the Roman period, until the 4th century AD, when the emperor Theodosius abolished them.

The Dionysiac cults, which had more of an orgiastic character in the modern sense of the word, included much wildness and extravagance. The cult of Dionysus had many festivals, for example, the City and the Rutal Dionysia, the Anthesteria, and the Oschophoria. Besides the official celebration in honour of the god, there were also private celebrations that involved ecstatic worshipping of the god and going beyond one's self. The phenomenon of maenadism, as described in Euripides' *Bacchae*, is one example of extravagant rites that, even if they are mythical, still retain the element of self-transcendence that orgiastic cults promoted. Women in a state of ecstasy abandoned their homes and joined frenzied dances on the mountains swinging thyrsi and torches. This cult involved as a sacramental meal the devouring of an animal as it was bleeding. There is evidence of *orgia* of this type on Mount Parnassus by women controlled by Apollo who admitted Dionysus to Delphi and assisted the establishment of his cult in a milder form.

The Orphic cult promised life after death, and was related to oriental and Egyptian ideas of the afterlife. It involved many expiation rites. The worship of Cybele, or the Great Mother, is the result of much religious syncretism. The orgiastic character is strongly associated with her due to the institution of eunuch priests, the self-castrating Galloi. As with the Eleusinian mysteries, there is a mythic narrative corresponding to the ritual practice. Attis, the young lover of the goddess, was castrated and became her follower. Various rites were associated with the worship of Cybele, such as the *taurobolia* (slaughter of a bull) and *kriobolia* (sacrifice of a ram), perhaps dating from the 2nd century AD, when the initiate had to be drenched in the blood of a sacrificed bull or ram.

The Cabeiria was a mystery cult that took place in Samothrace and acquired importance second only to the Eleusinian mysteries. Ancient writers talk about the cult of the "Great Gods" in Samothrace. It is possible that the Great Mother of the Gods as well as Hecate and a certain Zerynthia Aphrodite were worshipped in Samothrace. Archaeology reveals that the shrines were active until the 3rd and possibly 4th century AD. As at Eleusis, the two important stages were those of preparation

and initiation. But whereas in the Eleusinian mysteries one had to wait for at least a year between the two, in Samothrace they could be achieved on the same day. All the initiation rites occurred at night. The most important buildings found are the Anaktoron, where the initiation took place, built in the 1st century BC (but replacing an earlier structure), the Hiera Oikia (sacristy) where all the preparations were made, the Arsinoeion, built between 289 and 281 BC by Arsinoe, the wife of Lysimachus, a place for sacrifices and gatherings, and the actual shrine (Hieron). Many votive offerings have been excavated as at Eleusis, and it is possible to see the ruins of a theatre.

Cults associated with foreign gods such as Mithras, Serapis, and Isis were important in Greek religious life until late antiquity. Orgiastic cults continued to exist even after pagan times and within Christianity, and some blended into Christian ceremonies, although there was conscious opposition, particularly by Church Fathers. After the establishment of Christianity, many of the places that were important for ancient mysteries were destroyed, as happened at Samothrace.

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See also **Festivals; Mysticism; Religion; Women's Cults**

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ORIGEN AD 184/85–254/55

Christian writer

As a native of Alexandria, Origen encountered the thought of Philo and the Valentinian "Gnostics", though he does not admit to learning much from either. He may have succeeded Clement as the head of the Catechetical school, and one of his works, the lost *Stromateis*, derived its title from his predecessor. He also found time to study with a teacher of Greek philosophy named Ammonius. This may be the same Ammonius who taught the Neoplatonist Plotinus, but those who identify the Christian Origen with Plotinus' fellow pupil of that name are merely cherishing an indifference to the facts. Origen's talents earned him first the patronage, then the enmity, of bishop Demetrius of Alexandria, and he migrated from the province to Caesarea, where his friends conferred on him the rank of presbyter. The breach with Alexandria was now irreparable, but in Caesarea Origen became an indefatigable teacher and a celebrated author, enjoying both the friendship of an empress and the general admiration of the Church.

Origen was the earliest Christian writer to make use of the Old Testament in Hebrew rather than Greek. The six columns of his *Hexapla* contained the Hebrew text, a transliteration of this into Greek characters, the Septuagint, and the later Greek translations or revisions made by Symmachus, Aquila, and Theodotion. Since he maintained the authority of the Septuagint against well-founded criticism, his object was more probably to establish the text of this than to replace it with a more accurate translation. Nevertheless, having had a "Hebrew" teacher, he acknowledged the Jewish canon (Eusebius, *Historia Ecclesiastica*, 6. 25), and his commentaries and homilies, which cover most of this and our New Testament, did not extend to the Apocrypha. The purpose of his exegetic writings was to bring every part of the Bible home to the thoughts and lives of his contemporaries; whereas his heretical precursors had appealed to uncanonical gospels, he applied the tools of allegory to the scriptures, introducing a distinction between the body, soul, and spirit of the text (*De Principiis*, 4. 2. 4 etc.). He argued that the spiritual sense was present everywhere, and might sometimes be the only one, as in the Song of Songs; but the bodily or literal sense was not discarded except when it appeared to condone absurdities, immoralities, or defections from the apostolic faith.

This faith he upheld at the greatest length in his eight books against the dead philosopher Celsus; they presented Christianity both as the heir of Judaism and as the philosophical antidote to the errors, pains, and vices of the world. This work, perhaps composed to mark the thousandth anniversary of Rome in 248, is largely orthodox, but in his earlier *De Principiis* (On First Principles), the first Christian experiment in systematic theology, he allowed himself more freedom in speculation. He appears to have held, for example, that our souls lived in a higher state with God before they descended into this world, where they must undergo a purifying chastisement for their sins (*De Principiis*, 1. 4 etc.). This process after death will be extended to the body, and, though each must attain perfection in his own time, the whole created order will eventually be saved (*De Principiis*, 2. 8–11 etc.). These views, whatever they owe to Platonism, rest on a fundamental tenet of Greek theology, that no one ever suffers more from God than he or she deserves. Equally seminal for Orthodox doctrine was his teaching on the Godhead, for he was the first to say that in this Trinity or triad of three hypostases the Spirit and the Son are coeternal with the Father, though their existence and activity depend upon his will (*De Principiis*, 1. 2, *Commentary on John*, 2. 10, etc.).

Origen undoubtedly saw himself as an exegetic theologian, whose reading of the scriptures was conditioned by the teachings and traditions of the Church. While he is glad from time to time to find a friend in Plato, he never takes a philosophical statement as his starting point or advances a conjecture that cannot be grounded on some sacred text. He takes it as an axiom that God the Word is present in every sentence of the scriptures (*Philokalia*, 5), and says that in his use of philosophical tools he was "spoiling the Egyptians" to enrich his own understanding (ibid. 13). Even his anthropology could not be independent of his Trinitarian doctrine. The Spirit first converts us by addressing the rational element, next the Son instructs our souls in virtue, and finally the Father gives us everlasting life, wherein the spirit and the soul will be united to the proper kind of body (*De Principiis*, 1. 3. 8 etc.). The germs of the threefold mystical way – the purgative, the illuminative, and the unitive – are discernible in this scheme, but it neglects the body less than many later speculations. The Spirit is our sole guide while our body is still at war with us; when this

has been refined by immortality, we can be at last "one Spirit" with the Lord.

Among his disciples Origen numbered Eusebius of Caesarea, who profited greatly by his scholarship, and Gregory of Nyssa, who adopted his universalistic theory of salvation. In Gregory's time, however, it was already necessary to borrow silently, for Origen stood accused of many heresies: for example, of believing in the transmigration of souls, of denying the resurrection of the body, and of making the second person of the Trinity inferior to the first. His heresies were exposed in the *Ancoratus* and *Panarion* of Epiphanius of Salamis, who seemed disposed to condone the anthropomorphite heresy rather than follow Origen in abandoning the literal sense of scripture. He charged him with denying not only the bodily resurrection, but the fall of man in Adam, and his tract in defence of the Septuagint suggests that he saw an insidious purpose even in the *Hexapla*. Origen was condemned in 553 by the Second Council of Constantinople, and in consequence most of his writings were destroyed. All that survives in Greek is a number of homilies, passages from the *Commentary on Matthew*, the greater part of the *Commentary on John*, the *Contra Celsum*, the treatises *On Prayer* and *To the Martyrs*, the newly discovered *Dialogue with Heraclides*, and the *Philokalia*, a compilation of excerpts made by Basil the Great and Gregory of Nazianzus. We depend on the Latin renderings of Jerome and Rufinus for most of the rest, including the *De Principiis*; but in the West the uncertain status of the Constantinopolitan Council has allowed such theologians as von Balthasar to pay more open tribute to his *Commentary on the Song of Songs*, a seminal work of Christian mysticism. Jerome's regard for Origen and Rufinus turned to hatred under the spell of Epiphanius, but it was Origen's example that inspired his Latin translation of the Old Testament from the Hebrew. In eastern Christianity Origen's influence, where perceptible, is a testimony to his intellect, his honesty, and the many abiding merits of his work.

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Biography

Born in Alexandria in AD 184 or 185, Origen was educated at the catechetical school under Pantaenus and Clement and learnt philosophy from Ammonius. He may have succeeded Clement as head of the school before moving to Palestine in 215. He wrote extensively about textual criticism, exegesis, and systematic theology and was ordained a priest. Recalled to Alexandria, he was later banished and settled at Caesarea. He died at Tyre in 254 or 255.

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ORPHISM

The term "Orphism" is somewhat ambiguous, as it is not clear exactly what it refers to. The ancients never spoke of Orphism but only about Orpheus, the presumed author of Orphic books, and of certain Orphic rites. A book became Orphic simply by being ascribed to Orpheus. The question of whether Orphism existed as a religious movement or merely as a set of beliefs described in the Orphic literature remains controversial. The rise of Orphic ideas and the nature of Orphic practices remain obscure despite some recent discoveries. The unifying factor, Orpheus, is a mythical figure of Thracian origin whose main characteristic was a unique gift for music. This characteristic features in a number of ancient stories about Orpheus; he is said to have enchanted Hades with his song so that his prematurely dead wife Eurydice returned to life (cf. Plato, *Symposium*, 179d); to have taken part in the Argonauts' expedition and outsung the Sirens (cf. Pindar, Pythian 4. 167f.); and to have been beheaded by Thracian women while his head continued to sing (*Symposium*, 179d, *Republic*, 620a).

Through his achievements Orpheus appears as a great shaman – somebody whose spirit can affect the whole of nature, from plants and animals to souls and even gods or Hades. These achievements are often the subject of the Orphic poems, usually hymns or longer poems of theogonic or cosmogonic content, most of them now lost or only partially preserved. Such Orphic poems presumably started to circulate from the 6th century BC and they became popular in 5th and 4th centuries BC, as the

testimony of various authorities suggests (e.g. Euripides, *Hippolytus*, 952ff.; Plato, *Republic*, 364e, *Cratylus*, 402b, *Philebus*, 66c, *Laws*, 829e). A relatively recent find, the Derveni papyrus, discovered in a tomb in northern Greece and dating from the late 4th century BC, contains a commentary on an Orphic theogony and proves that such Orphic poems were in circulation already in the 5th century BC. In the 6th century AD Damascius (*De Principiis*, 123–24), discussing the Orphic account of the beginnings of the world, talks of three Orphic theogonies, of which he had only indirect knowledge. According to the core of Orphic cosmogony Chronos, the primordial divinity, gives birth to Aether and Chaos and they generate a world-egg.

The link between these poems and a cult of Orpheus is difficult to determine. The Derveni papyrus, buried and burned with an unknown Greek, makes even clearer the close linking of religious practices to a specific text. Orphism seems to have been very much a book religion. Plato talks of purveyors of purifications and rituals which bring deliverance from unrighteousness, claiming that these people perform rites in accordance with books by Musaeus and Orpheus (*Republic*, 364e–365a). The most ancient testimony to Orphic practice comes from Herodotus. With reference to the prejudice against introducing woollen articles into temples or being buried in them, Herodotus says that this is an Egyptian custom and "in this they agree with the practices which are called Orphic and Bacchic, though they are actually Egyptian and Pythagorean" (2. 81). Herodotus is not the only one who identifies Orphic with Bacchic rites. In Euripides' *Hippolytus* (953) Theseus uses the verb *baccheuein* for Orphic rites. Archaeological evidence further supports the close relation between Orphic and Bacchic rites, and Orpheus often figures in artistic depictions of predominantly Dionysiac themes. Orpheus is sometimes said to be the initiator of the cult of Dionysus (Hecataeus), but at other times he is presented as having neglected the worship of Dionysus after his journey to Hades, instead venerating the sun (Aeschylus, *Bassarai*) for which his punishment was his assassination by a group of Thracian women. We hear of active *Orphikoi* in Athens and in southern Italy in the 5th century BC and we know of their distinctive views (e.g. Aristotle, *De Anima*, 410b28f.), but little is certain about their rites. Ancient sources speak of Orphic rites (*teletai*), though without giving precise information (Aristophanes, *Frogs*, 1032, *Rhesus*, 943; Plato, *Protagoras*, 316d), and also of participants in these rites (*Orpheotelestai*) (e.g. Theophrastus, *Characters*, 16. 11). Presumably the mysteries referred to, at least in some of those occurrences, are the Eleusinian mysteries. In some sources Orpheus is mentioned as their founder (Diodorus Siculus, 1. 23. 2f.), and Orphic mysteries are sometimes identified with the Eleusinian mysteries (Pausanias, 1. 37. 4). Orphic ideas indeed permeated the Eleusinian and also the Theban mysteries of the Cabiri. Orphics were particularly concerned with the purity of the soul, which was deemed to be imprisoned in the body. This purity was sought through an ascetic way of life with strict rules, especially about diet, such as abstinence from meat (Euripides, *Hippolytus*, 952–55; Plato, *Laws*, 782c–83c), but also from eggs, beans, and wine. Orphics believed in an afterlife and the transmigration of the soul, a feature which brings Orphism closer to Pythagorean ideas rather than to the Eleusinian mysteries. There is a certain common ground between Orphism and Pythagoreanism and perhaps some rivalry between them, to judge from such contradicting testimonies as that according to which Pythagoras and the Pythagoreans were the true authors of Orphic poems and that Pythagoras was indebted to Orpheus.

Orphic literature proliferated in the Hellenistic and the imperial eras. In the religious syncretism of late antiquity the name of Orpheus continued to fascinate, but now there was even less concern for demarcation between Orphic and other religious cults. A significant revival of interest in Orphic literature occurs with the Neoplatonists. Orpheus was now not only an inspired poet but also a theologian. The Orphic poems were interpreted allegorically and, under this interpretation, were held to be in accord with the doctrines of Platonic philosophy. The Orpheus legend had a considerable impact on Christianity. Although the Orphic rites were dismissed, the story of Orpheus charming nature with his music was interpreted as a prefiguration of Christ charming human souls with his teaching (Clement, *Protrepticus*, 7. 74. 3–6). Christ in his role of the Good Shepherd is said to be the new Orpheus (Eusebius, *Laus Constantini*, 244. 14–31). The figure of Orpheus which is often found in catacombs stands for Christ, who can also be depicted as Orpheus himself.

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OSTRACISM

One of the most remarkable and at the same time controversial institutions of the Classical Athenian democracy was ostracism, a procedure whereby once a year any citizen (usually a leading politician), could be banished by a vote of the people. The term itself derives from the method of voting, which involved writing the name of the victim on a potsherd (*ostrakon*).

In the sixth prytany of every year the assembly voted by a show of hands whether or not to hold an ostracism; if it decided to do so, the ostracism took place in the Agora during the eighth prytany. The citizens voted by tribes in an enclosure, and if at least 6000 votes were cast, the man who received the highest number was obliged to leave Attica within ten days. He suffered no loss of citizenship (*atimia*) or property rights, but could not return to Athens for a period of ten years. The main ancient account of ostracism is found in the *Athenaion Politeia* (chapter 22), which attributes its introduction to Cleisthenes in 508/07 BC. Both attribution and date have been questioned, since ostracism was not in fact used for another 20 years; and a fragment of Androtion (Jakoby, *Fragmente de griekischen Historiker*, 324 fr.6, in Harpocration s.v. Hipparchus) has been taken to indicate an alternative tradition, that ostracism was introduced shortly before 487. However, the text of Androtion is very uncertain, and the *Athenaion Politeia* version is to be preferred. Later sources, notably Aelian (*Varia Historia*, 13. 24), record that ostracism was originally held in the Boule (council) and that Cleisthenes was himself the first victim of his own procedure, but this third tradition is also to be rejected.

The purpose of ostracism was to end rivalry between politicians that could potentially be harmful to the interests of the state. According to the *Athenaion Politeia*, Cleisthenes' original intention was to prevent future tyrannies, and it was subsequently aimed against those who were too powerful. Its early victims, indeed, were "the friends of the tyrants": Hipparchus son of Charmus (487), a relative of the tyrant Hippias; Cleisthenes' nephew Megacles (486), a member of the Alcmaeonid family that was suspected of attempting to betray Athens to the Persians at the battle of Marathon; and probably Callias son of Cratius (485), another supporter of Hippias. One sherd bearing Callias' name has a drawing of a Persian archer on the reverse. However, it is unlikely that ostracism, even though it was introduced in the aftermath of the fall of the Pisistratid tyranny, was designed specifically as a check on the tyrants, for which more direct and secure action could have been taken, and this seems very much like an inference from the identity of the first victims. Rather, it will have been introduced by Cleisthenes as part of his political struggle against Isagoras.

Later victims of the 480s were also connected with the Persians, at least by the voters: Xanthippus, the father of Pericles (484), had married into the Alcmaeonid family, and one *ostrakon* bears an elegiac couplet possibly associating him with their curse; Aristides (482) appears on another which claims he was a "brother of Datis the Mede"; while other *ostraka* refer to their victims as Alcmaeonids and "one of the traitors". But both Xanthippus and Aristides were recalled early under an amnesty passed in 480 before the Persian invasion. Other prominent victims of ostracism were Themistocles (*c.*470), Megacles again (sometime in the 470s; 4647 of the Ceramicus *ostraka* bear his name), Cimon (461), the elder Alcibiades (*c.*460), and Pericles' rival, Thucydides son of Melesias (443). The last man to be ostracized was the demagogue Hyperbolus (probably 416); the practice subsequently fell into disuse, though the law remained in force, and was replaced by the *graphe paranomon* (indictment for unconstitutional activity).

Over 10,000 *ostraka* have been found, on the Acropolis, in the Agora, and in the Ceramicus cemetery, and these record the names of over 130 different men. This suggests that there were no lists of candidates; and while those actually exiled will regularly have been ostracized for their political policies, other citizens clearly featured in the voting as a result of personal enmities. Indeed, Plutarch records the occasion when a voter wished to cast his *ostrakon* against Aristides, because he was tired of hearing the latter being called "the Just" (*Aristides*, 7. 7). That this citizen was unable to write the name of his victim is evidence for illiteracy in Classical Athens, although the procedure seems to presuppose widespread literacy. One find, of 191 *ostraka* on the Acropolis with the name of Themistocles, also has a bearing on this question, since they are written in only 14 hands, but furthermore is clear evidence for a concerted campaign against him by political opponents.

The fourth speech in the corpus of Andocides purports to be an oration delivered at an ostracism. The occasion is, however, historically impossible, and it is extremely unlikely that speeches were made on the day of the voting. It is stated in section 6 of this work that ostracism was used only in Athens, but in fact there were similar procedures in other states, including Argos, Megara, and Miletus.

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P

PAESTUM

Greek colony in Campania

Paestum (Poseidonia) was an important Greek colony in Campania in southern Italy and is the site of well-preserved Greek temples. Located about 80 km south of Naples, Paestum is about 700 m from the sea and just south of the Sele river.

The site saw human habitation as far back as the early Stone Age; roving hunters moved through the area, leaving behind tool artifacts. Neolithic farming is evidenced from the archaeological record, and recent excavations have recovered remains from the Bronze Age, e.g. a large graveyard 1.6 km north of the city, and houses in the southern sector of the ancient walls. Sherds of Mycenaean pottery suggest some, though probably indirect, contact with the Greek mainland. In the environs of Paestum 8th- and 7th-century sites have been recovered.

Paestum was founded between 650 and 600 BC by colonists from the Italian city of Sybaris, which was itself a colony established in 720 near Croton on the Ionian Sea by Greeks from Troezen and Achaea. The city was called Poseidonia, or the City of Poseidon. At about the same time, the sanctuary of Hera at Foce del Sele was established about 8.5 km north of Paestum; this sanctuary included a temple, altars, stoas, and a treasury. In the 6th century BC Paestum flourished through trade with the Etruscan cities to the north. Its political importance increased when Etruscan influence waned and the mother city Sybaris was destroyed in 510 BC. Many of the Sybarites fled to Paestum, and this, coupled with the great fertility of the plains and the city's strategic position on the trade routes, caused a further economic boom. Around 400 BC the Italian people called Lucanians descended from the interior mountains and invaded Campania, soon taking over Poseidonia. The city continued to prosper, however, and enjoyed a strong, vibrant industry and commerce. Soon the Lucanians' expansionist policies brought them into conflict with the Greek cities further south, especially Tarentum. The Greeks called upon Alexander, the Molossian king of Epirus and brother-in-law of Alexander the Great, for assistance. Alexander was initially successful, reaching as far north as Paestum where he defeated the Lucanians in 332 BC. The following year, however, Alexander died and Paestum fell again under the rule of the Lucanians. Soon another power appeared on the scene: Rome. Rome gradually became involved in Campania in response to the Greek cities' calls for help against the Lucanians. In 280 BC Tarentum reacted to this intrusion in their sphere of influence by calling upon Pyrrhus, king of Epirus, for assistance. Pyrrhus was soon defeated, abandoning Italy in 275 BC and thereby allowing Rome to assume control of the whole of southern Italy. Rome established a colony at Poseidonia in 275 and renamed the city Paestum. The city's status became *socius navalis*; this meant that Paestum, although nominally autonomous, supplied Rome with a quota of sailors and transport ships (as opposed to land troops, as in the case of other Italian cities).

Paestum proved very loyal to Rome, even in the darkest times. Throughout the First and Second Carthaginian Wars of the 3rd century BC Paestum's loyalty never wavered – even when much of Campania and all of Lucania defected to Hannibal after the disastrous Roman defeat at the battle of Cannae in 216 BC, and even as Hannibal feasted in the city of Capua, just a few days' march to the north. Paestum also maintained allegiance to Rome during the Social War of 91–88 BC, when many of Rome's allied cities in central and southern Italy revolted in an effort to achieve full Roman citizenship. As a reward for its unswerving loyalty, Paestum retained the right to mint its own coinage until the 1st century AD. Later in that century the emperor Vespasian settled a number of sailors at Paestum.

Paestum's gradual decline began as early as the 2nd century BC. The completion of the great highway, the Appian Way, diverted the major trade route away from the southeast coastal area to the ports on the Adriatic. Even a new local road, the Via Polilia, bypassed Paestum. Despite a somewhat renewed building programme in the 2nd or 3rd century AD, the city suffered malaria epidemics as well as flooding and swamping due to the silting of local rivers. By the 5th century the city had been reduced to a village of houses clustered around the temple of Athena, which by now had been converted to a Christian church. There are records of a bishop residing in the city as late as the 7th century, and an 8th-century basilica was erected. In the 9th century the inhabitants moved to the hills because of constant raids by the Saracens.

Paestum contains some of the best-preserved and most important Greek temples in the ancient world. The city walls, with a perimeter of nearly 5 km, date to the 5th century BC, with renovations done in the subsequent two centuries; 24 round and square towers ring the walls, with four main gates. The Greek city was laid out with two sacred areas in the north and south, separate areas containing public buildings, and houses laid out in gridlike blocks. The south sacred zone contains two magnificent temples, both dedicated to Hera. The so-called "Basilica", dating to *c.*550 BC, is extremely well preserved. The adjoining, mid-5th-century temple, also dedicated to Hera but erroneously called in earlier literature the temple of Poseidon, is one of the best examples of Doric architecture. The two temples formed the centre part of a sacred precinct of Hera. The northern sacred area contains the 5th-century temple of Athena (originally thought to have been dedicated to Ceres); its design is radical, being the first Greek temple to incorporate both Ionic and Doric elements. The Greek agora, or marketplace, was situated just south of the Athena precinct, as recent excavations have shown. A circular meeting-house (*bouleuterion*) and an underground shrine flanked this area.

The Roman colonists radically restructured Paestum in accordance with typical Roman city planning. A large forum was mapped out between the two sacred zones, with the *cardo maximus* and *decumanus* roads leading into the forum (the *cardo* even replaced the Sacred Way that had run behind the two Hera temples). The open court of the forum was flanked by such buildings as theatres, markets, baths, an ampitheatre, a gymnasium, and smaller temples.

Paestum is surrounded by important archaeological sites, many of which are still being excavated. Three major necropolises have been located, ranging in date from the 3rd millennium to the 4th century BC. The paintings of early 5th-century BC tombs are important for the history of Greek art. At Santa Venera, 1 km south of the city, a large sanctuary has recently been discovered; dated to the 5th century BC, the complex was dedicated to Aphrodite (not Bona Dea, as once thought).

Paestum is an extremely important city for the study of ancient Greek architecture, south Italian tomb painting, Roman city planning, ancient religion, and pottery and burial customs.

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PAINTING

The origin of Greek painting is difficult to ascertain. Ancient literature is filled with references to famous painters and paintings, but very few paintings survive. Archaeological evidence provides some knowledge of the painter's craft and subject matter. There are specific descriptions by Aristotle, Plutarch, Pliny the Elder, Quintilian, Lucian, Cicero, and Pausanias. They extol the artistic talent of the Greeks, whose art was avidly collected and used to adorn public and sacred buildings. Among ancient painters, the most celebrated were male, yet it was not an exclusionary craft; Pliny names female artists as well. The gradual evolution from painted temple metopes and plaques, stelae, wooden panels, and pottery resulted in painting so illusionistic that horses were said to neigh when confronted with a painted image of another horse.

Antecedents of Greek painting occurred during the Bronze Age cultures of the Minoans and Mycenaeans. Murals on the palace walls of Crete and Thera were partly influenced by Egyptian art, but the subject matter and function appear to be completely different. There is an inherent liveliness and naturalism in the landscapes, figures, and animal motifs. Topics are religious (funerary or sacrificial rituals) or purely decorative. In both cultures marine and floral motifs were depicted on vases. Mycenaean painting is related to Minoan art, with military themes and abstraction becoming evident.

In Greece vase painting arose *c.*900 BC with the Geometric period. Figures were black silhouettes formed by circles, triangles, and squares. During the Orientalizing phase there was progress in distinguishing musculature and identifying facial characteristics. In Archaic black- and red-figure vase painting males and females are presented in mythological or everyday scenes. Overlapping figures indicate depth. Details are scratched into the dark figures for drapery, hair, and other features. Red-figure painting allowed for greater expressive freedom by using a brush loaded with paint for details rather than a stiff etching tool. From the second half of the 6th century BC artists' signatures are common, the painter writing *egrapsen* ("he drew") after his name.

According to one legend, drawing began in Greece when a woman traced the outline of her lover's shadow on the wall. Ancient writers relate that great achievements in Greek mural and panel painting occurred during the 5th and 4th centuries BC. The use of flat colours within an outline progressed to forms modelled in light and shade; buildings were depicted in perspective; and figures and objects were illusionistically set into space using cast shadows. The most celebrated painters, who included Polygnotus, Apollodorus, Zeuxis, Parrhasius, Pausias, Nicias, Apelles, and Protogenes, were renowned for their ability to create *trompe-l'oeil* effects on flat surfaces. Many paintings

were on panels that could be transported to cities and art markets, thus spreading the fame and fortune of the artists.

In the early Classical period Polygnotus from Thasos was regarded as the "inventor of painting", completing huge murals depicting the lives of the Greek heroes. He used four colours in his palette: white, red, ochre, and black, and in various combinations. His most famous subject was a series of paintings of the Trojan War placed in the Propylaea on the Acropolis. His ethnic depictions were especially celebrated and spectators could read the thoughts of the characters from their expressions.

During the later 5th century BC Apollodorus of Athens developed the use of shadows and perspective. Pliny stated that Zeuxis "entered the gates of art which Apollodorus had opened". Pliny's description of the painted grapes of Zeuxis reveals a new peak in illusionistic art: birds flew at the panel to peck at the fruit, though his rival, Parrhasius, painted a curtain so convincingly that even Zeuxis was fooled. Parrhasius of Ephesus lived in an ostentatious manner, wearing a purple cloak and golden wreath around his head and singing as he worked.

An important representative of the school of Sicyon was Pausias, who is associated with improvements in colour. In an allegory of *Drunkenness*, a glass bowl was rendered so realistically that a woman's face was reflected in it. Many of his panels were taken to Rome by admirers to decorate the imperial capital and villas of aristocrats. In the Athenian school Nicias was highly esteemed and fits our contemporary picture of the passionate artist. He was so involved in his painting that he would forget to eat. Nicias was very particular about his subject matter as well, saying that what one painted was as important as how one painted. As with Pausias, many of his paintings were brought to Rome; one was placed in the Roman Senate, another in the temple of Concord.

Apelles, the favourite painter of Alexander the Great, is the artist who surpassed his contemporaries and predecessors in skill, fame, and fortune. He left his native Ephesus for Sicyon to complete his training and was taken by Philip of Macedon to his capital Pella when his talent was recognized. Upon Alexander's accession, Apelles became the court painter. He used a thin black glaze to unify his compositions and enhance the brilliance of the paints. Apelles was by all accounts a pleasant man and supportive of his friends. He apparently purchased several paintings by Protogenes at a high price to show his appreciation of his friend's work. Protogenes of Rhodes lived in poverty most of his life but remained dedicated to art, probably saved from starvation by the generosity of Apelles.

Several female painters also achieved a high level of success. Helena, daughter of an Egyptian, is credited with the *Battle of Issus* depicting Alexander's defeat of Darius from which the famous mosaic copy in Pompeii was made. Pliny names quite a few others: Timarete, who painted an Artemis at Ephesus; Eirene, painter of a maiden of Eleusis; Calypso, who painted portraits; Aristarte, who painted Asclepius. Iaia of Cyzicus mostly did commissioned portraits of women as well as a self-portrait with the use of a mirror. She was noted for the rapidity and excellence of her work. Her paintings sold for much higher prices than those of her contemporaries. Another painter, Olympias, is known only for her pupil, Aristobulus. In some cases, the women were daughters and pupils of other painters whom Pliny names. Iaia remained single all her life, devoted to her craft.

There are numerous Graeco-Roman murals in Pompeii, Herculaneum, and other small towns nearby which were perfectly preserved by the eruption of Vesuvius in AD 79. Unfortunately, the paintings are unsigned; some are possibly copies from famous compositions done by Greek painters. The murals themselves have been categorized into four basic styles ranging from simple reproductions of marble surfaces to elaborately conceived and depicted landscapes, architectural compositions, portraits, and panel paintings set within ethereal frames.

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See also **Pottery**

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PALESTINE

The name Palestine is derived from the Peleset (the biblical Philistines), a people settled on the coast of Palestine in the 12th century BC by the Egyptians to look after their interests; attempts to link them with the Mycenaean Greeks are highly speculative, though there are cultural similarities. There were contacts with Greece from the earliest period, but they were not especially significant, though the southern range of the cities of the Phoenicians, who had a decisive influence on the development of Greek culture from the 10th to the 7th centuries BC, overlaps into Palestine.

Palestine really enters Greek history with the conquest of the Persian empire by Alexander the Great of Macedon, who took it over on his way to Egypt in 332 BC. With the division of Alexander's empire on his death, Palestine was initially controlled by the Ptolemies of Egypt, and the attractions of Greek culture made themselves felt almost at once. In particular, Ptolemy recruited a large number Palestinian Jews to populate the new city of Alexandria. This new Jewish community became exclusively Greek-speaking (and was responsible for the translation of the books of the Old Testament into Greek – the Septuagint – with momentous consequences both for Christianity and for the development of the Greek language), and its continuing contact with the Jews of Palestine was one of the means by which the international Hellenistic culture made its influence felt in Palestine. Thereafter, though the local Semitic language, Aramaic, continued to be the first language of most people in the region, knowledge of Greek spread very widely, and it seems likely that many people would have had at least some knowledge of the language. By 198 BC the Ptolemies had

been driven out by the Seleucids, and subsequently one section of the population of Palestine, the Jews, reacted strongly against the spread of Hellenization (the issues are obscure, but seem to be related to the introduction of Greek institutions, such as athletics, into Jerusalem); the outcome was a rebellion which, thanks to the Seleucids' problems with the Parthians and the Romans, ultimately led to the setting up of a Jewish state under the Hasmonean dynasty. Though the ideology of the new state was "anti-Greek", the attractive influence of Hellenism continued to exert itself. The kings, for example, took Greek names (Aristoboulos, Alexander), and while the non-Jewish cities of Palestine were trying to establish ancient links with Greek culture (Joppa, for example, claimed to be the place where Perseus saved Andromeda from the sea monster, and other non-Greek cities invented Greek founders), the Jews went one better and claimed that Sparta was a Jewish colony (1 Maccabees 12: 5–23). Later, when Herod became king under the protection of the Romans, the Temple he built in Jerusalem was essentially in a Hellenistic style. Herod, indeed, founded a new city on the coast, Caesarea, which was entirely Hellenistic in nature, and equipped with the standard institutions of the Greek lifestyle, including theatres, statues, and temples.

The reduction of Palestine to a Roman province, and the crushing of two Jewish revolts in the 1st and 2nd centuries AD, removed the Jews from effective control of the region, and thereafter the process of Hellenization followed the same pattern as elsewhere in the Roman empire. The growth of Christianity, however, gave Palestine a new significance in the Greek world. Herod's foundation, Caesarea, was a particularly influential centre for the development of Christian thought. The Alexandrian theologian Origen worked there in the 3rd century toward the end of his life, and founded a school that played a decisive role in the formation of the eastern tradition of theology. In the next century the Christian historian Eusebius was bishop there. Later, with the establishment of Christianity as the official religion of the empire, Palestine became the home of a monastic tradition that was one of the roots of Orthodox monasticism. The patronage of the emperors from Constantine onwards resulted in the construction of major shrines in places important in Christian tradition, especially the Church of the Holy Sepulchre in Jerusalem. As a result, a long tradition of "religious tourism" had by the 4th century developed into pilgrimages proper, travel to sacred sites in the hope of accumulating spiritual benefits. The special position of Jerusalem is shown by the decision of the Council of Nicaea (325) to raise its bishop to the status of patriarch, fifth in precedence after the bishops of the politically more significant sees of Rome, Constantinople, Alexandria, and Antioch. Though politically a backwater, Palestine continued to be spiritually significant throughout the Byzantine period, and after the Arab conquests Byzantine emperors regarded the protection of religious communities there as one of their special responsibilities.

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See also **Jews**

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PAMPHYLIA

Region of southern Asia Minor

Pamphylia consists of a broad plain along the southern coast of Asia Minor, between the more difficult mountainous territories of Lycia to the west and Rough Cilica (Cilicia Tracheia) to the east. It is framed by mountains to the north, through which passes give access to central Anatolia. The mountains are snow-covered in winter, and give rise to rivers, the most important of which is the Eurymedon, ensuring that the plain is well watered and fertile. It is a lush region (modern crops include cotton and bananas), and is obviously a desirable area in which to live.

In antiquity its population seems to have been of mixed origin, indeed, its name "all tribes" suggests. It would have been known in the Bronze Age to traders sailing from the Aegean to the Levant and Cyprus, and there is a tradition of Greek settlement in the area, though whether this goes back to that period, or, more likely, reflects something of the movement of peoples in the disturbed times at the collapse of the Bronze Age states is unclear. The legendary founders of this settlement include Mopsus, a seer who was the son of Manto, daughter of Teiresias. He drove the Carians from Clarus in Ionia, where he inaugurated the famous oracle. His name has been identified on Hittite documents, and on a Luwian Phoenician inscription at Karatepe, and may therefore be Anatolian in origin, assimilated into a Greek tradition of settlement. This all brings out the mixed origins of the peoples of Pamphylia, but by the Classical period Greek certainly was established as a language of the region, in a dialect which was related to Arcado-Cypriot, implying that the Greeks did arrive at the same time as they did in Cyprus, when the dialect indicates a unity between this region and the Greek homeland. An exception seems to have been the city of Side. Arrian, writing in the 2nd century AD, says this place was founded by settlers from Cyme, but once they had arrived they promptly forgot their native Greek and began to talk in a foreign tongue, which was not the usual (and, by implication, non-Greek) language of Pamphylia, but a "new" dialect of their own. Such stories reflect the mixed origins of the Pamphylians of the Classical period. There is virtually no archaeological evidence to illuminate this very early period.

By the end of the 6th century Pamphylia was part of the Persian empire. The Ionian revolt, in conjunction with the rising in Cyprus, probably sought to exclude Persian influence in this strategically important area, but failed. This policy was revived by the Athenians under Cimon, culminating in the presence of an Athenian fleet in the waters off Pamphylia and the battle of the Eurymedon, when the Persian fleet was driven up the river and annihilated. This may have led to the inclusion of the Pamphylian cities in the Delian League. The evidence for this is slight; the Athenian tribute list of 425 BC, when the tribute paid by Athens' allies was sharply increased to pay the costs of the Peloponnesian War, includes Celenderis in Cilicia and in Pamphylia Perge and Sillyon, as well as another

Pamphylian city the name of which is now missing from the inscription but which is generally identified as Aspendos. Pamphylia was hardly within Athens' area of interest or control at this date, but a reasonable explanation is that the list includes, rather optimistically, all places which were once part of the alliance, and for this the period following Eurymedon is the most likely. What is clear is that when Athens and the Persian king, whether tacitly or by treaty agreement, recognized each other's sphere of influence, Pamphylia was in Persian hands; the inability of the Athenians to retain control is a reflection of the setbacks they experienced after Eurymedon, and the geographical difficulty of defending the Pamphylian communities.

Pamphylia remained under Persian control until the arrival of Alexander the Great. He first occupied Perge, where he was received by envoys from Aspendos, who surrendered their city to him, asking in return to be left free from the imposition of a garrison. Alexander agreed, but demanded in return 50 talents to pay his troops, and all the horses bred there as tribute to Darius the Persian king, implying that he did not recognize it as a Greek city to be liberated from Persian control. He also occupied Side, but had to besiege Sillyon, at which Aspendos reneged on its agreement; it was then forced to accept a governor and to give hostages. In the Hellenistic period Pamphylia first came under the control of the Ptolemies of Egypt. In the wave of Greek settlement in Egypt instigated by Ptolemy II many of the Greeks came from Pamphylia, the most distinguished of them being Apollonius of Perge, one of the greatest of Hellenistic mathematicians.

Pamphylia, however, remained vulnerable, Ptolemaic control being disputed by the Seleucid kings and by the neighbouring Pisidians. In the 2nd century BC it was taken over by the Pergamene kings, who founded the fifth of the great Pamphylian cities – Attaleia, the modern Antalya. Through this it was incorporated with the kingdom of Pergamum into the Roman province of Asia, eventually becoming part of a joint province with its western neighbour Lycia. Attaleia had by then lost territory through its support of the pirates in the troubled times of the 1st century BC, and was forced to accept under Augustus a settlement of legionary veterans of Italian origin.

It was the period of Roman peace which brought the greatest prosperity to the Pamphylian cities, though its inland mountainous areas seem to have remained more backward. Before this the cities were probably restricted places. Arrian describes Aspendos when it rebelled against Alexander as built on a very steep hill, the base of which was washed by the river Eurymedon. Similarly Perge includes a steep-sided hill, which may be the original settlement; small-scale excavations (not yet published) which are being carried out here may throw light on its earlier development. In the Hellenistic period Perge was extended to include a large area of flatter ground below this hill, and this was surrounded by strong fortifications, with regular tall towers to accommodate the latest forms of torsion artillery, and an imposing main gate at its southern end. Even so the place was further extended in the Roman period, with a great theatre and adjacent stadium constructed outside the earlier limits.

Perge, above all, demonstrates the strength of the Hellenic city tradition in the Roman period, when it was the metropolis of Pamphylia. During the 2nd century AD, when the region was untroubled by any major historical occurrences, the architecture of Perge was greatly enhanced, not as a part of some remote imperial gesture of support but through the wealth of its local aristocracy. The main street, running from the acropolis to the southern gate, exemplifies this; broad, paved, lined with colonnades, and with an artificial stream down its centre fed by a splendid fountain at its northern end and running in a sequence of low waterfalls as it descends towards the city gate. The theatres of Pamphylia are equally spectacular. Perge has an auditorium built against a hillside, as does Aspendos. Aspendos is structurally complete, though the decoration of its stage building has gone. At Perge the stage building has collapsed (it is now, slowly, under reconstruction) but the elements of its elaborate facade survive. At Side the theatre stands on flat ground, its auditorium supported on a vaulted substructure, though this is built entirely in the local cut-stone tradition, not employing the Roman concrete technique.

Pamphylia escaped the worst consequences of Roman decline in the period of the late empire. It was the creation of an Arab fleet in the mid-7th century AD that exposed its weakness. Prosperity seems to have suffered as a result of the rise of Islam and the loss of whole sections of the Byzantine empire, and the population of the cities declined as a consequence. The great city walls enclosed areas too vast to be defended, and unnecessary for the population. The circuit of Side was reduced, the theatre being incorporated into an inner line of defence. But the decline continued, and further Arab threats in the 10th century resulted in a similar reduced fortification at Attaleia, much of which has been destroyed only recently. At the present time, only Antalya survives as a flourishing, rapidly expanding, but essentially non-Hellenic city.

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Summary

A region of southern Asia Minor, Pamphylia ("all tribes") had a cosmopolitan population in antiquity. By the Classical period the Greek language was established but the region remained under Persian control until the arrival of Alexander the Great. The prosperity of the area is indicated by the size of the Hellenic cities of Perge, Sillyon, Side, Aspendos, and Attaleia.

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PAPHOS

City in Cyprus

The kingdom of Paphos was already established in the 12th century BC, together with the other kingdoms of Cyprus which

flourished mainly in the 1st millennium BC. The site of ancient Paphos (often referred to as Palaipaphos) lies about 15 km southeast of the modern town of Paphos, at a distance of about 1 km from the sea, under the houses of the modern village of Kouklia. In the 1950s the French archaeologist Jean Bérard tried to prove through excavation that ancient Paphos was situated near the northern outskirts of the modern town, but the results were negative.

The site of Old Paphos has been known since the 19th century, mainly because of the remains of the temple of Aphrodite which survived above ground. It was then that the first excavations were carried out, and the first inscriptions from the site of the temple were brought to light which mention the Great Goddess of Cyprus. According to legend the founder of Paphos was Kinyras, representing the indigenous population, but at the end of the Trojan War (soon after 1200 BC) the king of the Arcadians, Agapenor, came to the island with other Arcadians and founded a city of which he became the king. Behind these myths may lie the historical events which are attested by archaeological evidence, namely the beginning of the Achaean colonization of Paphos. Paphos must have been an important urban centre during the 12th century BC. This is reflected by the magnificence of the architectural remains of the temple of Aphrodite and the wealth of the tombs excavated in the Evreti locality which yielded gold jewellery, carved ivory mirror handles, seals, and other artifacts. The Achaeans mingled with the local population and by the 11th century BC, when the process of colonization was completed, there is evidence for the use of the Greek language in the area. On a bronze skewer, found in a tomb of the 11th century BC, there is an engraved inscription with the Greek name Opheltes in the genitive in a form which is peculiar to the Arcadian dialect. Extensive excavations in the early Geometric cemeteries of Old Paphos have brought to light ample evidence for the influence which the Achaeans exercised on the material culture of Paphos (pottery, bronzes, and other objects) as well as on tomb architecture. It should be mentioned here that it is in the tombs of Paphos that there is material evidence for early contact with the Levantine coast, clearly the result of trade which may have been the source of wealth for the Paphians.

Recent archaeological excavations at the site of the temple of Aphrodite have proved beyond any doubt that the original temple was established early in the 12th century BC. It may have been dedicated to a local goddess of fertility, whose worship had a long tradition in the area of Paphos (since the Chalcolithic period). By the time of the Homeric epics, however, the temple is known as the temple of Aphrodite. It was to Paphos, according to Homer, that Aphrodite fled after she had been caught red-handed by her husband Hephaestus in her love affair with Ares. There she had a temple with a fragrant altar (*Odyssey*, 8. 360–66). The temple must have contributed considerably not only to the fame of Paphos as a religious centre throughout the Hellenic world and also the Levantine region, but also to the economic growth of the town. The goddess of Cyprus, Aphrodite, is referred to in Greek literature as Kypris or Paphia. Paphos is comparable to Delphi; the Greek lexicographer Hesychius (1st century AD) refers to Paphos and Delphi as the "omphalos of the earth".

The actual remains of the 12th-century BC temple are too scanty to allow an accurate reconstruction. Based on representations of the temple on seals and coins dating from the Hellenistic and Roman periods, it may be suggested that the original temple consisted of a large courtyard with a perimeter wall constructed of large well-hewn blocks of stone, some of which still survive in situ. There must have been a tripartite structure (as shown in later representations), a holy-of-holies, in the central part of which the sacred aniconic symbol of the goddess, a conical meteoric stone which actually survived, was kept.

The history of Paphos during the early decades of the 1st millennium BC is known mainly from archaeological discoveries in its rich cemeteries. In particular, a tomb of the 8th–7th centuries BC yielded not only rich tomb gifts, but also evidence of special funerary customs, namely the sacrifice of horses with their bronze gear; there were also iron firedogs and skewers, a bronze shield, pottery imported from the Aegean, bronze vessels, and other grave goods. This was not the tomb of an ordinary man. Both the architecture of the tomb and the wealth of the gifts which it contained justify comparison with the "royal" tombs of Salamis, where members of the royal family or prominent citizens, members of the aristocratic elite, were buried. Numerous terracotta votive figurines have been found in the area of the temple of Aphrodite which betray the two cultural traditions to be found in Paphos, and also throughout the island, during the Archaic period, when the island was under the Assyrians: the Greek tradition illustrated by figurines of the goddess with uplifted arms, a type which was introduced from the Aegean in the 11th century BC, and figurines of a Phoenician type.

Assyrian rule over Paphos and the rest of Cyprus is reflected by the so-called prism of the Assyrian king Esarhaddon, which commemorated the reconstruction of the royal palace at Nineveh in 673/72 BC. Ten tribute-paying kings of Cyprus are mentioned, one of whom is "Ituandar, king of Pappa". His name is Greek, Eteandros, which is known also from other inscriptions. Other kings of Paphos with Greek names are also known from inscriptions of the 6th century BC, namely Stasis and his son Onasicharis.

Paphos suffered the same political fate as the other cities of Cyprus. After the Assyrians, the Egyptians ruled Cyprus for a while (669–545 BC). In 545 the kings of Cyprus submitted voluntarily to Cyrus, king of Persia, whose rule was ruthless. Paphos took part in the Ionian revolt against the Persians, together with the other cities of Cyprus, in 499. The Persian army besieged Paphos and a fierce battle was fought outside the northeast gate of the city. Archaeological excavation revealed some dramatic moments of this siege. The Persians built a mound outside the gate to reach the height of the city walls, but the besieged undermined it with countersiege works. To build the siege mound the Persians used stones and sculptures pillaged from a nearby Archaic sanctuary. The sculptures include fine heads of limestone, some of them illustrating Egyptianizing stylistic trends, but other sculptures such as a marble winged sphinx betray the influence of Greek art. Mention should be made of the discovery of a Greek bronze helmet, no doubt belonging to a Greek soldier who defended the city against the Persians. Paphos, together with the other cities of Cyprus, fell under the Persian yoke once more.

The names of several kings of Paphos of the Classical period are known from their coinage. One of the best known is King

Nikokles. He seems to have objected to the lust of the cult of Aphrodite, and introduced to Paphos the cult of Hera, the goddess of family life. Finally, in about 320 BC, he transferred his throne from Palaepaphos to Nea Paphos, about 15 km to the northwest, near the coast, where he built a temple to Artemis Agrotera, demonstrating again his feelings against the cult of Aphrodite. Nikokles was responsible for the building of a harbour and the defences of the new city, remnants of which have been uncovered in recent years, in the western part of the city, with monumental gates and ramparts. The vertical rock face provided adequate protection against possible attacks from the seaward side.

Nea Paphos flourished under the Ptolemies. In the 1st century BC they transferred the seat of government from Salamis to Nea Paphos, which was more easily accessible from Alexandria. The mint of Paphos was quite important during the Ptolemaic period, as is illustrated by a hoard of 2484 silver tetradrachms found during recent excavations. Several Greek gods were worshipped at Nea Paphos including Zeus Polieus, Leto, Apollo Hylates, Artemis, Aphrodite, and Hera. The city had a gymnasium and a theatre. A playwright of the 3rd century BC who was a native of Paphos is known by name, Sopatros. Among the political-religious institutions of Paphos, the ''Koinon Kyprion'' (the confederation of the Cypriots) aimed at the promotion of the ruler cult. The city must have had monumental buildings, but none of these has survived. The splendour of the rock-cut ''tombs of the kings'', imitating those of Alexandria, echoes the importance of the Ptolemaic city.

Palaepaphos, with its temple of Aphrodite, continued as a religious centre during the Hellenistic and Roman periods, but its economy declined considerably, having lost the status of capital of the region.

The Romans favoured Paphos to a considerable extent and they retained it as their capital and as the headquarters of the Roman garrison. Culturally, however, as in the rest of Cyprus, the Hellenistic civilizations lingered on. The spacious and luxurious villas with their polychrome mosaics, which have been uncovered during recent excavations, illustrate the importance of Roman Paphos. In the Acts of the Apostles it is mentioned that St Paul and St Barnabas preached Christianity in Paphos, and Sergius Paulus, the governor of Paphos, was converted to Christianity in AD 45.

The repeated earthquakes of the 4th century AD destroyed the splendid buildings of the city, although some of them were repaired and continued to be used down to the 5th century. Christianity prevailed completely by the 4th century, in spite of some efforts to revive the old pagan religion. Paphos regained part of its old splendour during the early Christian period.

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PAPYRUS AND PARCHMENT

Stone, metal, clay, pottery, wood, wax, and other materials were all used as writing materials from an early date, but it was the lightness and convenience of papyrus, parchment, and paper that made writing a portable and accessible activity.

Evidence for the use of papyrus (from which we get our modern word paper) dates from the 3rd millennium BC in Egypt, and it was used in Greece from at least the end of the 6th century BC, as proved by its depictions on pots. An early Greek word for papyrus, *byblos*, may indicate that it came to Greece from Phoenician Byblos at the same time that the Greeks obtained their alphabet in the 8th century.

The papyrus plant, although cultivated in Palestine and Sicily in antiquity, was native to Egypt, where it was produced commercially for purposes as varied as material for boats, for sandals, and, of course, for writing. The primary production area was the lower Nile and delta, probably giving rise to Alexandria as its principal distribution centre later. Pliny (*Naturalis Historia*, 13. 74–78) provides the most extensive, if sometimes faulty, description for the manufacture of papyrus sheets in antiquity. The triangular-sectioned stalk was sliced into strips *c.*30–40 cm long, the centre pith providing the most prized grade of material, the outer strips the least prized. Strips of similar quality were set parallel to each other on a flat surface; a second layer was then placed at right angles on top and the two layers were pressed to release the natural gluten in the papyrus, which served as the bonding agent for the dried sheet. After drying, the sheets were smoothed with a smooth stone or shell before being attached to other sheets with a wheat paste and vinegar (probably to kill mould) by overlapping sheets by 1–2 cm. For writing from the left, the left sheet overlapped; for writing from the right, the right sheet overlapped. Individual sheets might be used for accounts and records, but literary works often used about 20 sheets in a book roll *c.*6–8 m long by 0.11–0.24 m wide. Customized rolls of different dimensions have produced examples more than 40 m long but customers generally bought a ''regular'' book roll and then cut or added according to need. One of these rolls would accommodate a dramatic text of *c.*1500 lines, two books of Homer, or one book of a prose writer such as Thucydides.

Most often the inside of the roll had the horizontal strips of papyrus. This helped to reduce the strain caused by rolling and unrolling but, more importantly, the horizontal grain aided writing and became the primary writing surface. The outside, composed of the vertical strips of papyrus, was not regularly employed as a writing surface although many exceptions exist.

In addition, since the inks applied by reed pens were water soluble, the writing on the surfaces of both papyrus and parchment was often sponged or rubbed off and then reused (as a palimpsest). In order to protect the papyrus when rolled up, the first sheet, called the protocol (*protocollon*), was often attached at right angles to the grain of the next one. Occasionally parchment was used to reinforce the vulnerable sheet and the roll was wound around a cylinder to help protect it. Cedar oil was used to repel worms.

A variety of animal skins also served as writing materials. Two processes were used to procure a suitable surface although the initial stage was the same: the skin of the freshly slaughtered animal was temporarily cured to inhibit decay, allowing later processing, or the skin was immersed in a solution to help loosen flesh and hair, which were then removed. At this point the processes diverged. Hides steeped in tannins produced durable and flexible leathers. In the second process, hides were first slaked in lime and then rubbed with calcium oxide. Next they were stretched on a frame and gently air-dried in an environment that maintained a moderate temperature. At that point the hides were removed from the frames and smoothed with pumice or chalk to increase their whiteness. The final product, which might also be thinned by shaving, was parchment (goat or sheep) or vellum (kid or calf). The stiff and durable material was then cut into sheets and sewn into rolls with hair-sides on one surface and flesh-sides on the other. Later, in the 1st century AD, both parchment and papyrus were bound into codices (see below).

Papyrus was the favoured material throughout antiquity, even though hides were used as writing surfaces in Asia Minor from the beginning of the 1st millennium BC and in Greece probably from the 6th century at least. The theory that papyrus was eventually surpassed by parchment and paper since they have a better surface and are lighter in colour is not true. Pliny's (*Naturalis Historia*, 13. 21) statement that parchment was invented at Pergamum (*pergamena* is its name in Latin and Greek) also seems unlikely, but its surge in popularity probably arose in the first half of the 2nd century BC when problems with papyrus supply from Egypt gave the Pergamene rulers the opportunity to increase its prominence and distribution. During the Middle Ages parchment, even though more expensive, became the prized writing material largely as a result of its durability and wide availability, which was not governed by geographical restrictions and climate. Its use for liturgical purposes and then for legal and medical documents contributed to its success. Not until the 12th century did parchment begin to lose its position as the pre-eminent writing material, when the Moors introduced into Spain rag paper, an invention of ancient China that had steadily gained in popularity from the beginning of the 2nd century AD.

Book rolls were the most common medium for both papyrus and parchment throughout most of Greek and Roman antiquity. Wood tablets and hollowed wood tablets containing wax inserts, upon which accounts and temporary texts and exercises could be scratched or chalked, were joined together by a clasp or leather thong through holes and used as a type of notebook as early as the beginning of the 1st millennium BC in the Middle East and certainly by the early 5th century BC in Greece. The book roll, however, remained the preferred medium for longer, permanent texts. By the 1st century AD papyrus sheets and folded sheets of parchment began to replace the ungainly wood tablets. This produced a less cumbersome notebook that eventually, in its most common form, consisted of quires (gatherings) of four wide sheets of parchment folded along the vertical axis and sewn along the fold. The resulting codex (book) had eight leaves (folios) making sixteen pages, which were bound within a sturdy covering.

The new medium, however, did not win immediate acceptance among a seemingly conservative writing community. Doctors and astrologers may have promoted the use of such notebooks, but the acceptance and eventual domination of the codex over the ubiquitous book roll has been plausibly attributed to the newly emerging Christian religion. The codex provided a format that was clearly superior for recording and recovering information, and was convenient to carry, especially in contrast to the incredibly cumbersome book roll. For the first time it was possible to examine texts quickly and efficiently. The distinct format of the codex may also have been attractive to the new religion, which sought to set itself apart from the book roll of Jewish and pagan tradition.

From the 2nd century AD Christianity regularly employed the codex to record the Old Testament, New Testament, and Apocrypha. This use in conjunction with the growth of Christianity itself led directly to the acceptance of the codex as the standard format for the written world. Early Christian codices are all very utilitarian, but by the 4th century elegant volumes were being produced that contained elements foreshadowing medieval book illustration.

After the advent of writing, the innovation of the codex represents perhaps the most important advance to promote learing. Now real research could be recorded easily and efficiently.

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See also **Books and Readers**

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PARMENIDES *c.*515–*c.*440 BC

Philosopher

Parmenides was a Presocratic philosopher who lived in the southern Italian town of Elea (near the modern town of Agropoli). He was the first of a group of philosophers who are called Eleatics, the others being Zeno and Melissus. Parmenides also appears as a character in Plato's work *Parmenides* and is the probable inspiration for the character of the Eleatic Stranger in the same author's *Sophist* and *Politicus*, written a century after his death.

In the ancient world Parmenides and his successors were celebrated as opponents of the possibility of change. Just as Heraclitus was supposed to maintain, as a basic proposition, that everything is in constant change, so Parmenides and the Eleatics were held to be committed to the denial of the possibility of any change. But as with Heraclitus, this characterization somewhat distorts the emphasis and focus of their concerns. It is more accurate to construe these philosophers as early metaphysicians. Their concern lay with the nature of what there is and what is real. Change comes into the discussion through this motivating interest.

Parmenides' words are preserved for us through extensive quotations in Simplicius, writing some 1000 years later in the 6th century AD. His work is a poem which, after a hieratic introduction invoking divine assistance, contains two notably contrasting parts. In the first part he expounds the truth, while in the second he relays the erroneous opinions of unenlightened speculators. In the Way of Truth (as it is often called) he argues that if something can be spoken and thought about, it must exist; nothing is not a possible subject for investigation. "You cannot say or think what is not there", is his controlling refrain. Any possible subject for investigation, *is*.

As the argument advances, he establishes further facts about this existent subject: it is without beginning or end, single, whole, and invariant. Parmenides establishes each of these conclusions on the same basis as his original argument: the position that he will endorse commends itself because it enables him to avoid thinking or talking about nothing. As the author of this ongoing argument, he insistently reminds us of the conditions for any rational communication. He concludes this part of his argument by comparing his subject to "a well-rounded sphere, everywhere equally balanced from the centre".

Parmenides then passes to an account of a less enlightened way of thinking, which he declares to be thoroughly false but still wishes to expound. This account differs from the Truth in being comprehensively dualistic. Opposing pairs – such as Night and Day – are admitted into the scheme of things, rather than the introduction of the one requiring the exclusion of the other. Yet even here the method of argument is resolutely hard-headed and rationalistic, bearing the stamp of the author of the Truth.

Was Parmenides' Way of Truth meant to be an account of the physical universe or of some quite different order of reality, or of some monadic element in either of these schemes? Some would regard the question as quite anachronistic, and certainly any detailed answer to it is underdetermined by his own words. His argument points in the direction of every one of these philosophical developments, while not favouring or excluding any of them. The comparison of reality to a sphere may indicate spatial extension but it need not.

Parmenides' originality and achievement consist in four points. First, he introduced questions concerning existence into the explicit agenda of philosophy; he is the father of ontology. Secondly, he grounded this ontological discussion in the conditions for successful talk and thought. This is a feature of method that he shares with Heraclitus; both philosophers thus deserve the credit for first raising issues in epistemology. But in Parmenides the control exercised by considerations of language is paramount. He is the first philosopher of language. Thirdly, he expounded profound paradoxes about the possibility of change; thereafter no philosopher could assume that change was an unproblematic phenomenon. Finally he was the first philosopher to use argument. He advances from one statement to another with the armoury of "therefore" and "since". According to some current conceptions of philosophy, this last feature of his work would suffice to establish him as the first philosopher.

Parmenides and his immediate Eleatic successors bequeathed a powerful agenda of problems to subsequent Greek philosophers. The sophists of the following generation of 5th-century BC philosophers included Gorgias, who wrote a nihilistic essay in the Eleatic style *On What There Is Not*. These thinkers also developed epistemological paradoxes of change – for example, that learning and enquiry are impossible because there is no intelligible way for someone to advance from a condition of ignorance to one of knowledge. This is a version of the paradox of enquiry, first adumbrated in Plato's *Meno*. In later works, notably *Sophist*, Plato confronts the central Parmenidean claim that *what is not* is unintelligible and undiscussable. His highly original analysis of this issue turns on securing a sense for "not" according to which it means "other than".

Aristotle's philosophy is greatly influenced by Parmenides, even though the influence appears to be negative. In his own ontology, the ability to bring about and undergo change is a deeply important fact about most things that exist; and his programme of philosophical enquiry is organized accordingly. Therefore he regards Parmenides, with his utter rejection of the significance of change for natural substances, as a wrong-headed maverick. But he is compelled to give an account of change that removes from it any air of paradox. Aristotle achieves this with analyses that involve his novel concepts of potentiality and actuality and of matter and form. The motivation for these influential doctrines is a desire to show that change, so far from being mysterious as Parmenides had argued, is intimately bound up with the nature of everyday substances.

Aristotle's anti-Eleatic polemic was in part directed against certain contemporary philosophers, sometimes known as "Megarians". These included Eubulides, Philo, and Diodorus Cronus, who were interested in modal logic. Their interest in rigorous argument, and their paradoxical theories about possibility and necessity, bear the stamp of Parmenides.

From this point on Parmenides' direct influence wanes; but his philosophical personality looms large as philosophers from Kant onwards have pondered the idea that there are – or may be – limits to what can enter the scope of rational enquiry and discussion. Are there truths that transcend human powers of ratiocination? Parmenides in effect replied "no" to this question; and even those philosophers who are inclined to reply otherwise, must acknowledge the posing of this fundamental philosophical question as Parmenides' greatest legacy.

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Biography

Born in Elea in southern Italy *c.*515 BC, Parmenides was the first of a group of philosophers known as the Eleatics. He was the first philosopher of language. He is said to have visited Athens when aged 65. He appears as a character in Plato's *Parmenides*. He wrote a philosophical poem which survives only through quotations in Simplicius (6th century AD). He died *c.*440 BC.

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PARTHIANS

The Parthians were originally the people who lived in the Achaemenid province of Parthia (Parthava in Old Persian), which comprised the region of Chorasan in northeastern Iran and of southern Turkmenistan. The Parthians later came to be identified as the people of the Parthian empire, founded by the Parni, a nomadic people, who entered Parthia from the northeast in the mid-3rd century BC and adopted the name "Parthians" for themselves. Through gradual expansion the Parni/Parthians built an empire, which lasted for almost 500 years, from 246 or 238 BC to AD 224, and which stretched from the Euphrates to the Indus. Until the Parthians revolted against the Seleucid empire, Parthia remained a satrapy; during the reign of Antiochus III (223–187 BC) the Parthians were still regarded as vassals. Early Parthian coins bear a Greek legend and show that the Parthian kings did not always use a royal title; by the middle of the 1st century BC Parthian script was used and kings had adopted the Achaemenid royal title of "king of kings".

The expansion of Parthia from kingdom to empire was a gradual process which lasted over 100 years. After the death of Antiochus III in 187 BC, Parthian troops under Phraates I (176–171 BC) began campaigns against the mountain people north of the Elburz mountains, followed by campaigns south of the Elburz, led by his successors. Territorial conquest on a large scale was undertaken by Mithridates I (171–139/38 BC), who first secured the eastern lands for the empire, Bactrian territory in 160 BC, and eastern Iran in 150/145 BC. During the 140s BC Media was conquered and the Seleucids were driven out of Iran, allowing Mithridates to campaign against Babylonia and Elymais. With Adiabene, Gordyene, and Osrhoene, in northern Mesopotamia, as client kingdoms, and control of Dura-Europus won in 113 BC, the long period of Parthian conquest and expansion was completed.

The Parthians were ruled by the Arsacid dynasty, named after the founder of the empire, Arsaces I (*c.*248/238–217 BC). First establishing their power in the cities of Hecatompylos and Nisa, the Parthian kings then centred their power in Ctesiphon and Vologesocerta. The Parthian nobility was headed by the royal councillors *(ordo probulorum)*, followed by the Parthian aristocracy *(pelatai)*, the *douloi* (servants), and possibly a slave population. Organized in *regna*, client kingdoms of the Parthian king, which paid tribute and provided military service, the empire comprised a multitude of peoples who spoke different languages and dialects. Parthian became the administrative language of the empire, though other languages, such as Greek, Aramaic, Middle Persian, and Sogdian, were also used. Parthian culture shows distinctive features in art and architecture, most notably the vaulted *iwan* halls and the planning of cities and fortresses.

Parthian influence on the Classical world increased after 20 BC, with the establishment of diplomatic relations between Augustus and the Parthian king Phraates IV (38–3/2 BC). Phraates IV returned the standards taken from Crassus (54/53 BC), Decidius Saxa (40 BC), and Antony (36 BC), while Rome acknowledged the Euphrates as the border between the two empires, and returned Phraates' son to the Armenian throne. The diplomatic treaty marked Roman recognition of the Parthian empire, but Roman propaganda manipulated the event into a public demonstration of Roman superiority over the Parthians, expressed in literature and art. Parthia was considered to be yet another vast, oriental – and therefore inferior – empire, which Rome made little effort to understand.

In literature, the Parthians were stereotyped as cruel, uncivilized barbarians. They were on a par with the Scythians,

and with the decadent Persians of the past, being interchangeably referred to as Medes, Persians, or Achaemenids. Roman art after 20 BC shows a preoccupation with the depictions of Parthians as typical barbarians. The statue of Augustus of Prima Porta, dated to 17 BC, prominently displays a Parthian on Augustus's breastplate, "offering" the Roman standards. Parthians were represented as kneeling subjects, as in the case of a huge bronze tripod, or standing as supporting figures in architectural designs. Bronze ornaments representing mounted or dead barbarians in Parthian dress were mass-produced. Statues of Parthian barbarians, first seen at the Basilica Aemilia in the Roman Forum, were sculpted from coloured marble, *marmor Phrygium* or *marmor Numidicum*, symbolizing oriental luxury and colour. Their un-Roman build and stature identified the Parthians as people who were not part of the civilized world of the *orbis Romanus*, but of the *orbis alter*. A Parthian arc was built after 20 BC, depicted on gold and silver coins. Trajan celebrated his shortlived victory over the Parthians with an *aureus*, describing himself as Rex Parthus, and a coin, bearing the legend "Parthia Capta", depicted two barbarians huddled together in front of a *tropaeum*. Blurring the distinction between Persians and Parthians, Roman emperors sought to compare the Greek–Persian wars of 490 BC and 480/79 BC with Rome's fight against Parthia, in an effort to legitimize Roman ambition to conquer Parthia. The restaging of the battle of Salamis in a vast *naumachia* (ship battle) by the Tiber in 2 BC to celebrate the opening of the temple of Mars Ultor was one of a number of public demonstrations hinting at the Greek–Persian wars, but implying Rome's fight against Parthia. According to Roman ideology, the Parthians were an eastern, barbarian power steeped in oriental luxury, military aggressors who threatened the western world. Roman propaganda was to demonstrate that Rome was dealing with defeated barbarians, not with a political and military power that was equal to Rome. The Romans upheld this view throughout the existence of the Parthian empire and then imposed it on the Parthians' successors, the Sassanians. The Sassanians, for their part, rigorously tried to erase Parthian culture, and it remained largely forgotten until the late 19th and 20th centuries when excavations began in the Near East and the past of the Persian empires was revived. First excavations at Nisa, undertaken by Russian scholars between 1948 and 1961, began to unearth archaeological evidence of the Parthian period, from which emerges, and continues to emerge, a picture of the Parthian empire independent of hostile Greek and Roman sources.

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PASTORALISM

Pastoralism, that is to say the phenomenon of animal husbandry, has tended to go hand in hand to a greater or lesser degree with an agrarian economy. Pastoralism can be linked to a farming economy or, at the other end of the scale, be associated with transhumance, the seasonal movement of flocks from one area to another. Pastoralist communities would have a high reliance on domesticated animals for their livelihood.

The first evidence for sheep and goats on Crete as well as mainland Greece comes in the early Neolithic period, that is to say the late 7th millennium BC. Evidence for pastoralism on Crete in the Bronze Age has been presented by excavation of the Early Minoan II site of Myrtos. Some 90 per cent of the animal bones were from ovicaprids, and the excavation suggested that the wool was being processed in individual homes. Indeed it has been suggested that the settlement of Myrtos was possibly seasonal. Also from Crete come some models of sheep from inside a Middle Minoan I bowl found at Palaikastro.

Pastoralism in Arcadia is reflected by the appearance of small bronze dedications during the 6th century BC. These can show shepherds wearing a distinctive conical hat, sometimes wearing a cloak and boots. Often the shepherds carry a sheep or ram under their arms, though one from Mount Lykeios had a small calf on his shoulders. One figure, now in the Metropolitan Museum of Art, New York and said to have been found near Andritsaina, carries an inscription, "Phauleas dedicated [this] to Pan". Many of these Arcadian figures were probably dedicated in the sanctuary of Zeus Lykaios or the sanctuary of Pan (described by Pausanias, 8. 38. 5). Such types are similar to the now lost dedication made by the Arcadians of Pheneus who commissioned a statue of Hermes by the Archaic sculptors Onatas of Aegina and Calliteles (Pausanias, 5. 27. 8). Pausanias described a statue of the god "in a tunic and a cloak with a peasant's cap on his head and carrying a ram under his arm". Such dedications may suggest specialized pastoral communities. On the island of Rhodes in the Classical period one of the social groups was called a *sunnoma* which suggests that the members had a common right of pasture.

Evidence for pastoralism appears in the faunal material from excavations at Greek sanctuaries. Sheep and goats appear to have been favoured for sacrificial victims at many sanctuaries. Ethnographic evidence shows that culling of flocks can take place in the early summer before there is a lack of suitable pasture for large flocks, or for younger animals in the spring. If pastoralism is geared to the production of milk, then males and ewes which have stopped lactating are likely culling victims.

Pastoralism can also be detected in the epigraphic record. For example, in the 5th and 4th centuries BC the Attic demes of

Marathon, Thorikos, and Archia were sacrificing a number of wethers or ewes in their festivals. Such evidence for flocks makes up for the limited information for Attica available from literary sources. One such example may be the 4th-century BC legal case where sheep – the flock consisted of some 50 animals – were seized from a farm not far from the hippodrome (Demosthenes, 47. 52–53). A male lamb was sacrificed in the early summer on Mount Hymettos in Attica in the cult of Zeus Epakrios, presumably to coincide with the use of the higher winter pasture.

Pastoralism also makes its appearance in literary sources. For example, at the start of the *Theogony*, Hesiod was taught to sing as he tended flocks on Mount Helicon. Clearly the agricultural economy of Askra, so well known from the *Works and Days*, included a pastoral dimension; it should be noted that its pastures are only some 5 km from the lower slopes of Helicon. Aristotle (*Politics*, 1319a.19–23) noted pastoral communities as one of the best forms of democracy (after arable farmers). A more detailed account of sheep can be obtained from the Hellenistic writer Aeschylides (and recorded in Aelian, *On the Characteristics of Animals*, 16. 32), who noted that on the island of Ceos sheep were fed with the by-products of agriculture, such as fig leaves, olive leaves, and husks from pulses, to save on the poor pasture. Such reliance on agricultural products would keep the flocks close to the communities. The converse of this was that the flocks themselves were a ready source of dung which could be used to enhance the productivity of the cultivated plots and fields. However, one reason for the low profile of pastoralism in ancient sources is that shepherding was probably a humble occupation compared to that of arable farming.

The evidence from inscriptions and to a lesser extent literary sources suggests that flocks were usually owned by members of the social elite. For example, one of the mutilators of the herms in 415 BC at Athens had 84 sheep and 67 goats among his confiscated property. The flocks themselves appear to have been cared for by individuals of much lower status, sometimes slaves. Although there are some dedications known from herdsmen, they may have been hired.

One feature of pastoralism is the movement of flocks from summer to winter pasturage, transhumance. This may involve moving flocks from the summer pastures in the mountains to lower areas, sometimes over long distances. There are two main types: the first where the shepherds are drawn from lowland communities, but use the mountains for pasture in the summer; the second, so-called ''inverse'' transhumance, where the shepherds are themselves mountain dwellers, and only come to lower areas in winter or for markets. In recent centuries transhumance may involve the movement of whole communities, requiring winter and summer settlements. In medieval Crete the main community was often considered the winter one, often situated at less than 200 m, but by the mid-19th century the reverse was true with communities choosing to make the summer settlement their main centre. An ancient example detected in the literary sources is Sophocles' mention of the Theban and Corinthian shepherds on Mount Cithaeron in the story of Oedipus (*Oedipus Rex*, 1132ff.). However, such transhumance was over short distances; such pastures on Cithaeron lie only some 20 km from Thebes, and 30 km from the Corinthia. This can be contrasted with modern transhumance in the northern Peloponnese which might cover some 100 km. Another ancient example comes from the late 1st century AD on the island of Euboea where Dio Chrysostom (*Orations*, 7. 11–15) mentioned flocks and herds of cattle. Evidence from ancient border disputes suggests that such longdistance transhumance was unlikely.

Border disputes between neighbouring poleis could sometimes hinge on grazing rights. One such dispute in the 2nd century BC, marked by inscriptions giving details of the agreement, was between Epidaurus and Hermion in the southern Argolid. The text of the agreement indicates that pasturage was one of the issues at stake, along with cropping. The agreement records that there had already been a decision ''concerning the payment of fees to tax collectors for the pasturage of goats''. The border area in question was clearly delineated in the agreement, and on the ground it corresponds to an area of some 30 sq km with land rising to nearly 800 m. It may have been used for winter grazing, although it has been observed that in recent times the same area is traversed by transhumant shepherds taking flocks between Arcadia (Valtetsiotes) and the southern Argolid. Such recent patterns in Greece are thought to have been dependent on the landholding patterns developed during the Tourkokratia. The southern Argolid was thought to be a particularly attractive area for flocks, as there were ready markets on the offshore islands of Hydra, Spetsae, and Poros.

The number of goats using such land is hard to estimate, if only because other areas of grazing land would probably have been in use, but it has been suggested that something like ten herds each of 200 goats would not be unreasonable. If such numbers were using this area, it was clearly profitable to tax the land's use. A hint at the profits from such activity is revealed by a dedication made in one of the sanctuaries of the polis of Epidaurus by one Timainetos in the mid-4th century BC. Timainetos made an offering to the Dioscuri as ''a tithe from the goats''. Although Timainetos may have been one of the tax collectors, he is more likely to have been an owner.

Such disputes in the Argolid over such marginal territory were not unknown. Epidaurus had been in two further separate disputes with its neighbours, Corinth and Arsinoë (the renamed polis of Methana). It is perhaps significant that at the polis of Troizen in 146 BC there was a group of resident Arcadians. It has been plausibly argued that it was this group of individuals, who had been drawn to, and settled in, the marginal areas of the poleis of the southern Argolid, that was causing the tensions.

Such tensions may reflect the reasons for the 2nd-century BC boundary dispute between Delphi and its neighbour Ambryssos. The boundary between the two cuts across modern transhumance routes, and there is a possibility that grazing rights lay behind the ancient dispute. Such disputes emphasize the general view that mountain regions were considered to be the property of those dwelling in urban communities even though the majority of people chose not to dwell there.

The problem of neighbouring communities seizing flocks may explain the reason for the building of extensive walls for some cities in the Peloponnese. It has been argued, partly on the basis of Polybius' account of a raid on Messene in the 220s BC (4. 3. 8–4. 1), that one of the reasons for its new wall system in the 4th century was to serve as protection for flocks.

There seem to have been restrictions on grazing on land owned by some of the sanctuaries. For example, the inscription from Arkesine on Amorgos relates to some land which was the

property of the sanctuary of Zeus and which restricted the pasturing of animals. A 4th-century inscription from Chios restricts pasturing and the spreading of dung on what must be considered sacred land. However, estates belonging to the temple of Delian Apollo on the islands of Delos and Mykonos included grazing land.

Grazing could be the prerogative of citizens who were given specific rights of pasture; such was the case at Tegea in Arcadia. Such rights could then be bestowed on specific individuals for services to the community. In the 1st century AD the citizens of Methana in the Argolid granted grazing rights to a resident of Corinth, L. Licinnius Anteros, in return for his acting on their behalf as *proxenos* (''consul'') in the centre of Roman administration in the province. Such honours may in fact have become meaningless during the Hellenistic period, as sometimes they were bestowed on individuals who dwelt so far from the grazing areas that they are unlikely ever to have been in a position to take up the rights. In Hellenistic Boeotia the cities of Akraiphia, Kopai, and Orchomenus granted grazing rights on water meadows around Lake Copais as repayment for unpaid loans.

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See also **Animals; Transhumance**

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PATMOS

Island in the Dodecanese

Patmos lies some 56 km off the coast of Asia Minor and 34 km from its much larger neighbour, Samos, to the north. It was never blessed with good agricultural conditions, having poor soil and little water, and has no deep natural harbour; it is quite hilly, with its highest point rising to 270 m. In early Hellenic history it was recorded as being peopled first by Mycenaeans, and later by Dorians and Ionians, but was only mentioned once in passing by Thucydides.

During the Roman period Patmos was used as a place of exile for political prisoners, and it was for this reason that St John (also known as St John the Theologian or St John the Divine, in Greek St John Theologos) was banished to the island, probably in AD 95, during the reign of the emperor Domitian.

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PATRAS

City in the northwest Peloponnese

Patras was one of the 12 cities that made up the Achaean League, an ancient Greek version of the contemporary European Union. The city followed the policy of the league and neither fought against the Persians nor took part in the civil wars between the Greek cities. During the Peloponnesian War, Patras was a passive ally of Sparta without being actively engaged in the conflict.

The Achaean League was dismantled in 338 BC by Philip II of Macedon because it supported Athens against him. In the wars against the Romans, Patras and the re-formed Achaean League supported Philip V. However, after the Romans had defeated him and declared the city independent, it joined the Roman camp. Patras, like all Greek cities, became subject to Rome in 146 BC. After the battle of Actium in 31 BC the city was granted many privileges. It was declared independent and had its own council. It did not pay any taxes and the only liability imposed on it was acceptance of the Roman judicial authority.

The name of the city is believed to be derived from Patreas, a mythological hero who is regarded as its first settler *c.*1100–1080 BC, although other opinions exist, e.g. that the name is derived from Patrous a district of Egyptian Thebes and was given to the city by a tribe that came from there, or from Patar, a town in Asia Minor. The most probable explanation seems to be the first one. Patreas' father was a nobleman from the region of Laconia in the southeastern Peloponnese who took shelter near Patras after he was found guilty of conspiracy against the authorities. Patreas then conquered the nearby towns and villages and unified them under the name of Patras. Pausanias (2nd century AD) described the city as a cosmopolitan one with many temples, statutes, and groves.

DIMITRIOS GKAMAS

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PAUL, ST

Christian apostle of the 1st century AD

Little more is known of Paul, the second founder of Christianity, than of Jesus Christ, the first. His own letters inform us that he was born an Israelite of the tribe of Benjamin, that he became a rigorous Pharisee, and that he persecuted Christians with zeal (Philippians 3: 4–6). It is widely believed, on the evidence of Acts 21: 39, that he was a Roman citizen from Tarsus in Cilicia. His writings partly corroborate Luke's story, which appears in Acts three times with variations, that he encountered the risen Christ while he was carrying his instructions to Damascus. The remainder of Luke's narrative is, however, not so easily reconciled with Paul's allusions to his own history. Where his biographer states that he always preached the Resurrection in the synagogues before turning to the Gentiles, the letters show compassion for the Jews but never speak of them as an object of his own ministry. Paul boasts of eight beatings and three shipwrecks (2 Corinthians 11: 24–25), yet the one flogging and the one shipwreck recorded in Acts both occurred too late to have figured in his reckoning. Acts knows nothing of the 14 years between Paul's conversion and his appointment as the "Apostle to the Gentiles" (Galatians 2: 1–7); Paul's account of a meeting with the Apostles in Galatians 2 cannot be harmonized with Luke's description of the apostolic council in Acts 15. Luke knows nothing of Paul's escape from Damascus under the governorship of Aretas (2 Corinthians 11: 32); Paul claims none of the miracles that Luke attributes to him. Nevertheless, the two records may be complementary rather than contradictory, and a tentative chronology of the letters may be built on Luke's divisions of Paul's labours into four successive journeys, each beginning from Jerusalem. The first began and terminated in Asia Minor, the second included leading cities of Greece and Macedonia, the third retraced the first two with a protracted stay at Ephesus, and the fourth brought Paul to Rome.

If Paul and Luke are both reliable witnesses, the letter to the Galatians would have been written to the churches of south Galatia between Paul's first and second meetings with the Jerusalem elders, as recounted in Acts 11 and 15. The text is a fierce polemic against the "men from James" (Galatians 2: 12; cf. Acts 14: 19), who in Paul's view have betrayed the first agreement by demanding the circumcision of gentile Christians. Paul maintained that the law had been superseded by the new covenant in the death of Christ (Galatians 3: 15), the carnal circumcision by an inward crucifixion, and the "faith that works by love" (6: 14; 5: 6). The apostolic council ruled in favour of Paul (on circumcision at least), but in the course of his second journey he found that deaths in Gentile churches had raised fears about the salvation of the body. Writing from Corinth (1 Thessalonians 3: 6; cf. 18: 5), he told the Thessalonians that the imminent return of Christ would rouse the dead from "sleep" and then the living would be taken up to join them "in the air" (1 Thessalonians 4: 13–17). Soon after, while he was passing through the Troad and Macedonia, he developed a richer doctrine in three letters to the Corinthians (1 Corinthians 16: 5; 2 Corinthians 2: 13; Acts 20: 1–6), which now survive as two. Every believer, he argued, is a member of a new body, that of Christ, which is united by love and diversified by gifts of the Holy Spirit. We must therefore keep our own bodies free from sin, and commemorate that of Christ in a common Eucharist, where the rich share with the poor. After death our animal body will be transformed into a spiritual body, which, like the true Temple of Israel, will be a "house not made with hands". For the present, the hope of future glory must sustain us as we suffer in the flesh.

Paul's voyage to Rome, occasioned by his own appeal to Caesar after he suffered a Roman flogging, was pre-empted by the letter which he sent to that city while bearing a collection to Jerusalem at the end of his third mission (Romans 15: 25–26; cf. Acts 21: 17). Declaring that Greeks and Jews owed their salvation to one another, he exhorted them to renounce their external pieties, to acknowledge the universal reign of sin in our present bodies, to embrace the resurrection with its promise of inward and outward renewal, and thus to live according to the new law of the Spirit, which is fulfilled in love and purity of heart. His subsequent imprisonment is attested by three letters, though the causes remain obscure. Whether he is enjoining Christ's humility on the Philippians (Philippians 2: 5–12), or warning the Colossians not to follow manmade heresies (Colossians 2: 3–23), or sending back the runaway Onesimus to Philemon, his thoughts are now consumed by the glorious destiny that awaits the "slave of Christ" (Philippians 1: 1; Philemon 1: 1 Colossians 4: 3). According to tradition Paul was decapitated in the Neronian persecution of AD 64, though not perhaps before he achieved his goal of visiting Spain (Romans 15: 24).

Paul may have been the earliest writer to place the confession of Christ as Son of God at the heart of the gospel. He was also the first to offer any theory of atonement, describing Christ as a sacrifice (1 Corinthians 5: 7), as one who became a curse for us (Galatians 3: 15), and as a mercy-seat (*hilasterion*) for our sins (Romans 3: 24–25). His account of the Last Supper (1 Corinthians 11: 23–25) found its way into the liturgy, and his argument that it is better not to marry (1 Corinthians 7) seemed to justify the celibacy of monks. He was variously interpreted, and both Catholics and Gnostics can be reckoned among his heirs. It was therefore almost inevitable that those who wished to claim him should attach his name to spurious compositions. The letter to the Ephesians would appear to be a summary of Paul's mature doctrine by another hand. In the letter to the Hebrews his thoughts are encased in a carapace of arguments and expressed in texts more suited to its (supposed) recipients. The author of 2 Thessalonians was evidently desirous to acquit Paul of a false belief that the world was soon to end. The three "Pastoral Epistles", addressed to Timothy and Titus, were produced to lend authority to the episcopate which developed after his death. They already betray the legalistic, patriarchal,

and anti-Jewish sentiments which mar many later readings of the apostle. Among early commentators, Origen took Paul's distinction between the inner and outer man as the key to an allegorical interpretation of scripture, while the Antiochene school of Theodore, Theodoret, and Chrysostom gave more weight to his personality, his audience, and the circumstances of his writing. All agreed, however, that he was preaching not so much freedom from the law as freedom to obey it in the Spirit; hence the Greek Church has resisted antinomian exegesis, with its concomitant beliefs in total depravity and irresistible predestination. Holding that Paul intended to change his hearers and not merely to formulate doctrine, Greek theology emphasizes the ethical and sacramental elements in his thought.

MARK EDWARDS

Biography

Born (as Saul) at Tarsus in Cilicia, Paul was a Jew and a pharisee who persecuted Christians. Converted to Christianity *c.*AD 33, he became known as the "Apostle to the Gentiles". He undertook four missionary journeys and wrote epistles to many young churches. He was imprisoned in Rome and executed, probably in AD 64.

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PAUSANIAS *c.*AD 115–180

Travel writer

All our information about Pausanias' life has to be gathered from his work: he was not yet fully adult in AD 130 (8. 9. 7); the first book of his work must have been written before Herodes Atticus' great building programme in Athens, i.e. before AD 160; his historical references stop around AD 180. We know next to nothing about his personal life; his work lacks a prologue (where ancient writers usually introduced themselves) and a dedication; even his name is known only from the early Byzantine geographer Stephanus (who used Pausanias' work as a source around AD 535). Pausanias originated from Lydia, probably from Magnesia ad Sipylum, because he describes this region with extraordinary care and knowledge. He was born into a wealthy family of the city's elite; his work shows him to be a highly educated man, and he had the means to dedicate his life to extensive travelling (apart from Greece, he knows the whole of western Asia Minor, large parts of central Anatolia, Syria, Palestine, and Egypt). As he rarely mentions living people, we know nothing about his friends or the circles he associated with.

Pausanias' work, the *Periegesis Hellados* (Guide to Greece) in ten books (about 900 printed pages), is very probably completely preserved. Because parts of Greece are missing in the description and the work has no epilogue, it was sometimes thought that it remained incomplete or that the last part had been lost; this, however, is unlikely, for numerous cross-references throughout show that it was written following an elaborate plan from the beginning, Periegesis as a genre arose in Hellenistic times (3rd and 2nd centuries BC), but before Pausanias these works were mostly monographs on very restricted themes. Pausanias' Greece comprises the Greek mainland on the Balkan peninsula; the ten books deal with: (1) Athens, Attica, Megara; (2) Corinth, Argolis, the island of Aegina; (3) Laconia; (4) Messenia; (5) and (6) Elis (with a detailed description of Olympia); (7) Achaea; (8) Arcadia; (9) Boeotia; (10) Phocis (above all Delphi), and parts of Locris. On the one hand, Pausanias aims to select the most valuable and remarkable from the abundance of curiosities that he saw, but on the other hand he also wants to be as comprehensive as possible; so he often describes small and remote places. Each book starts with an introduction about the legends and mythology of the region, and Pausanias also gives historical explanations concerning the monuments he describes.

In the 19th and early 20th centuries Pausanias was considered a third-rate author, harshly judged by, for example, the influential scholar Ulrich von Wilamowitz-Moellendorff, and accused of plagiarizing older works and not really having seen the things he described. Only since the beginning of the 20th century has it become clear how conscientiously Pausanias fulfilled the task he had set himself, and how astonishingly reliable he is. For a whole series of ancient places he was the decisive guide for modern excavators: at Mycenae, Heinrich Schliemann was the first to understand Pausanias' passage about the town and to draw the right conclusions – namely, that the graves must lie *behind* the Lion Gate; when the monuments of Troezen were excavated in 1941, their identification was possible only because of Pausanias' precise report. His

systematic description of Messene, too, was confirmed by the finds; in the town of Callipolis, which according to Pausanias was totally destroyed by the Celts in 279/278 BC, excavations brought to light the completely burned buildings.

Pausanias was well versed in ancient Greek authors, above all lyric and epic poetry (which he often quotes) and, of course, the historians, of whom Herodotus was his great model. In his historical digressions he can be careless, and it is sometimes unclear whether he is giving his own interpretation or quoting from an older source and, if so, from which. On the other hand he is very reliable when he extracts historical facts directly from a monument: he reports hundreds of inscriptions, many of which have been confirmed by finds and have often proved very helpful for the transcription and historical setting of them.

Pausanias never explicitly states his personal preferences, but they become clear from his selection. First of all, it is its age that makes a site or cult interesting to him; this taste for the ancient is characteristic of the 2nd century AD and shared by many of his educated contemporaries. A more personal trait is his preferring religious monuments to profane ones. In matters of art, Pausanias again shows the high appraisal of the past characteristic of his epoch: he bestows the first place on Phidias, the second on Alcamenes (4. 10. 8); he appreciates some sculptures of the 6th and all of the 5th century BC, as well as the sculptors Cephisodotus and Praxiteles of the 4th century; but only Damophon of Messene of the later period; he has no regard for Polyclitus and Lysippus; nor does he even mention Hellenistic art or Pergamene "baroque". Similarly, the buildings that please him are from the 5th and 4th centuries BC.

Historically, Pausanias is interested in the period of independent Greece (mostly the 4th century BC); he judges Greek states according to their behaviour when Greek freedom was endangered; in his eyes, only Athens always did its duty. Though living in the Roman world, Pausanias feels totally Greek, as his work shows throughout. He exhibits no open resentment towards the Romans, but they are foreign rulers, and unlike some other contemporaneous writers (e.g. Aelius Aristides) he does not regard Roman world dominion as logical or natural; he points out the brutalities and pillagings of Roman generals, above all of Sulla. However, as things improved in the 2nd century AD, Pausanias several times praises the philhellene Roman emperors Hadrian, Antoninus Pius, and Marcus Aurelius, who showed respect and care for Greece and its heritage; but he never appreciated Greece's loss of freedom.

Unlike other "intellectuals" of his time, Pausanias did not catch the public eye and apparently failed to reach the readership for whom he wrote, perhaps (as Habicht suggests) because by the time of his writing the great wave of Roman "philhellenism" was already over. Another reason for this neglect may be the curiously mixed character of his work: for people who just wanted a traveller's guide the long historical digressions were boring, while those more interested in history did not want to read descriptions of buildings and works of art they did not have before their eyes. Apart from Stephanus of Byzantium (see above), the only attested reader of Pausanias in antiquity may have been Aelian (*c.*AD 200). In Byzantine times, too, he is apparently ignored by Photios, but Arethas read him and probably commissioned a minuscule copy of the text (now lost), which in turn was read by Maximos Planudes (late 13th century) and Nikephoros Gregoras (14th century); some excerpts are already found in the *Suda* lexicon. Around 1400 Arethas's manuscript came to Italy, establishing Pausanias' presence in the west, which was to be so valuable for archaeologists in the 19th and 20th centuries.

BALBINA BÄBLER

Biography

Born *c.*AD 115 to a wealthy family in Lydia, probably at Magnesia ad Sipylum, Pausanias was well educated. He had the resources to spend his life travelling and writing about his travels. He knew Asia Minor, Syria, Palestine, and Egypt; but his only surviving work is a "Guide to Greece" in ten books. Nothing is known of his life but he probably died *c.*180.

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PELION, MOUNT

Region in Thessaly

Mount Pelion, often referred to as the mountain of the centaurs, has been an inspiring place from antiquity to the present day. Its place in mythology is marked by many references in Homer, Pindar, the tragedians (especially Euripides), and Apollonius Rhodius. It is situated in central Greece, in Magnesia, north of Mount Ossa. It was believed to be the home of the centaur Chiron, the wisest of the centaurs, associated with the education of many heroes such as Heracles, Achilles, Jason, and Asclepius. In Hesiod's version of the Gigantomachy, Mount Olympus was challenged when the Giants tried to pile Pelion on Ossa. Jason used timber from Pelion in order to build the ship *Argo* for his voyage to Colchis with the other Argonauts to get the golden fleece. The marriage of Thetis and Peleus was celebrated on Mount Pelion. Although it has an eminent position in Greek mythology, it was most probably not settled extensively in ancient times, except for some areas on the coast, e.g. Pagasae, Iolkos, Aphetae, Orminion, and, in Hellenistic times, Demetrias. There are, however, archaeological remains of sanctuaries, such as the temples to Zeus Akraios on the Pliasidi peak and to Apollo Koropaios at Boufa (on the west coast).

ANDROMACHE KARANIKA-DIMAROGONA

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PELLA

City in Macedonia

The fortunes of Pella, which became the chief city of the Macedonian kingdom, mirror those of the kingdom itself. The city was situated in the region known as Bottiaea, to the north of what was until quite recently the lake of Giannitsa, the ancient lake Lydias. This was originally an inlet of the sea, but the major rivers which flow into it, the Haliacmon, the Loudias, and the Axios, gradually caused it to silt up, and it was finally drained in the 1930s. In Classical times, in the 5th and 4th centuries BC, the southern part, near the original Macedonian centre of Aegae, had already silted, but there was still open water to the north, accessible from the sea by boats. There was no dry route across it from the south at this time, and the land route had to skirt the silted, marshy area. The incorporation of Bottiaea into the Macedonian kingdom, at an uncertain date before 500 BC, gave the Macedonians access to the Axios valley and the lands beyond, where there were rich silver mines, certainly exploited by the Macedonians in the reign of Alexander I, in the first half of the 5th century BC, though their hold on this region was somewhat precarious. As a result, the old centre of Aegae was in effect at one end of the Macedonian kingdom, and gained access to the extended territories only by the roundabout overland route. When at the end of the 5th century the king Archelaus sought to modernize and so strengthen his kingdom, one of his most important actions was to develop a new capital at Pella, more in the centre of the extended state.

Not much is known about Archelaus' foundation. He built a palace on the low hill which seems to have functioned as the acropolis. The cemeteries of this city have been partly excavated, and their position suggests that the town extended only on the immediate slopes of this hill, to the south of it. The town was probably sacked (though there is no archaeological evidence for this as yet) by the Illyrians during their incursion in 359 BC, which almost destroyed the Macedonian state.

Under Philip II the Macedonian kingdom revived and reached unprecedented bounds, and with it, Pella. A new plan was laid out covering an area of at least 1.5 × 1.2 km, with the acropolis at the northern end, and the city extending down to the water's edge to the south. Within this a regular grid plan was laid out, with blocks measuring 110 × 48 m, running north to south and separated by streets some 6 m wide. On the flatter ground below the acropolis was the agora, a vast, near-square space 200.15 × 180.50 m. It was approached by a principal east–west street, noticeably wider than the others, an arrangement which seems to have been pioneered by the agora named after its town planner, Hippodamus, at Piraeus. This is town planning on a lavish scale. It is comparable, in general size, with the late 5th-century BC layout of Rhodes, but the detailed plan, with its repetition of blocks in the proportion 2:1, is not quite the same as Rhodes, where the blocks are subdivisions of square units demarcated by wider streets. The best antecedent for Pella seems to be the enlarged city of Olynthus (late 5th century) in Chalcidice, which is closer to hand and a more obvious model for town planners employed by Philip, even though he had destroyed the Greek city. Olynthus, however, does not have the large central agora. Evidence for the actual development of the city within this plan is as yet only partial. The agora was surrounded by stoas which seem to have been continuous on all four sides of it, with a double row of rooms behind them, some of which were certainly used as shops. The northern part may have been more official, the southern part commercial, the dividing line being the main road which passes through the colonnades into the central square. However, the architectural development of this agora appears to be relatively late, of the late 3rd century BC, the time of Philip V, rather than of the original layout by Philip II.

The most striking feature of Pella is undoubtedly a group of luxurious houses situated south of the agora. One of these, designated by its excavators the House of the Rape of Helen (from the subject of a scene depicted on one of its mosaic floors), occupied half of one of the street blocks. Its rooms were arranged round a large courtyard embellished by 8 × 8 Doric columns. The main rooms on the north side, with the mosaics, were surmounted by an upper floor, with a gallery of Ionic columns overlooking the court. The House of Dionysus, two blocks to the east, was even larger, taking up two-thirds of a street block. A doorway with a two-column porch gave on to an entrance hall running east to west between two courtyards, that to the north with 6 × 6 Ionic columns, that to the south with 8 × 8 Doric. The north side, again, was surmounted by an upper floor, with, probably, another gallery overlooking the court. All the mosaics in these houses are splendid examples, with figure scenes, made from complete pebbles, the earlier system, rather than the cut tesserae used in late Hellenistic floors at Delos and elsewhere.

These houses are of a particular magnificence, and, as far as the archaeological evidence goes, without parallel in the Greek world. Yet at Pella they are only two among others, and though this may well represent the wealthiest part of the city, they should not be regarded as special or public buildings. What they indicate is the degree of wealth achieved in Macedon as a result of the conquests of Philip and Alexander, to which period, from their architecture and contents, they undoubtedly date. The House of the Rape of Helen measures nearly 50 × 50 m (actually 2350 sq m), that of Dionysus about 50 × 65 m (3160 sq m), in contrast to the houses in Olynthus, which are approximately 15 × 15 m (215 sq m). Houses of a similar scale to those of Pella are implied by the street plan of Hellenistic Alexandria, but are there associated with a layout rather of Rhodian type. Houses in other Classical cities, where evidence exists, are only of the same size as those at Olynthus.

Pella thus indicates a level of luxury beyond that of the Classical cities, the benefits, doubtless, of conquest and empire, but demonstrating what the Macedonian kings had achieved. This, in turn, makes clear some of the motivation behind the fact that not all the citizens of Athens (to name only one of the Classical cities defeated by Philip) were inclined to oppose collaboration with the Macedonians.

The agora shows signs of sudden and unexpected destruction. One of the shops was a potter's workshop, containing moulds for terracotta vases decorated in relief. The systems of decoration depict, among a variety of subjects, scenes from the Homeric poems. That they remain as they were stacked in the shop, and also the overthrown columns of the luxury houses demonstrate that the city was destroyed by an earthquake, rather than the hostility of the Romans at the conclusion of the Third Macedonian War or the subsequent insurrection. But in the longer term Pella was ruined rather by the silting up of the lake, and the rise of Thessalonica, more conveniently placed by the sea, to serve as the principal harbour town of Macedonia. Pella was virtually extinguished. The Romans developed a new town a short distance to the west, but it never flourished. Thus Pella played only a brief part in the development of the Hellenic tradition. It was, however, a vital stage in a continuity which passed not only to Thessalonica, as its direct successor, but also to Alexandria as the outstanding city of the Hellenistic world.

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PELOPONNESE

Region of southern Greece

The Peloponnese (Peloponnesus) is the southernmost part of the Greek mainland, and has an area of 21,439 sq km, which is 16.24 per cent of the total area of Greece. An island originally, it was twice united and separated from the mainland by intense geological upheavals. It is thought to have been named after the legendary hero Pelops and, although it is called *nesos* (island), implying that the entire region was thought of as an "island", i.e. a separate part of Greece, it is actually a broad peninsula. On the west, south, and east it is bordered by the Ionian, Mediterranean, and Aegean seas respectively; but it is connected to the mainland of central Greece (Attica and Boeotia) by the isthmus of Corinth, formed by a subsequent retreat of the sea. In the 19th century this land bridge was cut to make the Corinth Canal, which almost made the Peloponnese into an island once again. Physically, the land is rugged and mountainous in its interior, and settlement is largely confined to the coastal plains and river valleys. Most villages cling to the steep mountainsides while the valley floors are reserved for farming. Products include wheat, citrus fruits, olives, tobacco, figs, and grapes. However, the greater part of the Peloponnese is mountainous, uncultivable, and poor. Sheep and goats of the pasturage and swine of the oakwoods are the main livestock that can be reared on about 50 per cent of the surface which consists of chalk and limestone. Climate and flora vary greatly according to the geographical and geological conditions: Arcadia and the east are almost entirely continental while the western parts are subject to maritime influences; the climate is purely Mediterranean along the coasts, but the centre has a relatively continental climate. In 1991 the population was 1,086,935, which is 10.59 per cent of the total population of Greece. It has been estimated that the civic population in 400 BC may have been 500,000 or 600,000.

The topography is complex. The north consists entirely of highland, from the lower mountain chains of the Argolid peninsula westwards successively through Cyllene (Ziria), Chelmos, Panachaicum, and to the south Erymanthus and Maenale towards the centre, all with extensive areas above 1500 m. Three chains run southwards from this mass, the lowest to the west beginning with Lykaion and running through Ithome to form the Messenian peninsula; Taygetus in the centre, with the highest summit of the Peloponnese (2409 m) forming the peninsula now called Mani, running to Cape Taenarum (Matapan); and Parnon to the east, running to Cape Malea. These parallel chains once formed part of the huge arc stretching from Albania through central Greece and Crete to Asia Minor. This original system was destroyed by the subsidence which created the large gulfs and most of the plains in the interior. In the Isthmian province and Argolid, as in the eastern parts of central Greece, the predominant direction of the ranges is west to east. The western and southern divisions of the Peloponnese are characterized by larger plains, forming a kind of counterweight to the smaller, closely enclosed plains, as around Tripolis, Mantinea and Arcadian Orchomenus, Pheneus, and Stymphalus. Along the north and west coasts are well-watered and well-drained terraces, the uplifted remnants of earlier coastal plains.

The eastern coastal plain, known as the Argolid, is dominated by the citadels of Argos and Mycenae. The fertile coastal strip in the north is divided into Corinth in the east and Achaea in the west; it includes Patras, the important port city and centre of tourism and the wine trade. The monotonous plain of Elis (Ilia), which extends down the west coast, is partially composed of the alluvium deposited by the river Alpheus. The southern coast is split into three promontories, the largest of which, Mani, is an extension of the Taygetus massif. Taygetus is flanked by Laconia round Sparta and Messinia round Kalamata. Both are alluvial plains and are free from winter frost.

In spite of its being a virtual island and with deeply indented gulfs between the mountain chains providing some good harbours, the Peloponnese had little communication with the sea. Arcadia, which is the most central of the regions, and whose pasturelands were 600–800 m above sea level, did not touch the

sea at all and was nearly inaccessible. The Peloponnese had relatively few harbours and little or no hinterland except in the Argolid and Elis. Consequently, naval operations against the coast were rendered more difficult: hence the importance of Halieis for Athens and Argos during their alliance in the mid-5th century BC, and of Pylos and Methone. The capes were all dangerous, Malea notoriously so, as attested by authors belonging to different periods, such as Homer and Thucydides. The importance of Tiryns and Mycenae in Bronze Age Greece may have been due to the existence of an "isthmus" route from the Gulf of Argos to Corinth. Following the destruction of Tiryns and Mycenae, Argos began to develop and in the 7th century BC reached its peak as one of the most powerful cities in Greece.

The name Peloponnese does not appear in Homer, who knows the entire peninsula by the name of Argos, one of its well-known Mycenaean city states. The name is first attested in the *Cypria* (fr. 11, Allen), a poem belonging to the Trojan epic cycle and now preserved only in fragments. The next known occurrence is in the Homeric *Hymn to Apollo*. The philosopher Anaxagoras saw in it an appropriate unit to measure the size of the sun. The geographer Strabo, writing during the reign of the Roman emperor Augustus, devotes a considerable portion of his eighth book to the Peloponnese. During the latter part of the second millenniun BC Mycenaean civilization flourished at centres such as Mycenae, Tiryns, and Pylos. The commercial and cultural influence of Crete, if not the political and military, began to be felt during the later part of the Mycenaean period, as shown by the Minoan-influenced design and decoration of palaces at Tiryns and Mycenae, and the impact of Minoan art revealed in the later shaft graves.

In historical times the Peloponnese consisted of six divisions: Achaea, Arcadia, Argolis, Elis, Laconia, and Messenia. These were separated from one another by mountains, and this fact hindered intercourse between them by land. Thanks largely to the landscape these regions maintained their identity throughout antiquity. Thus Elis was the region of the Alpheus plain and adjacent coasts. Achaea was made up of the steep northern valleys, their outfalls, and the coastal strip. Arcadia consisted of the central mountains and basins including the plain of Megalopolis. Messenia consisted of the southwestern peninsula and the Pamisus plain, while Laconia comprised the Eurotas valley and the southeastern peninsula. Corinth controlled the isthmus and its neighbourhood, while Argos dominated the plain. The Peloponnese was the home of several very powerful ancient city states, foremost among which were Sparta and Corinth. The decline of Greece's golden age has been traced to the Peloponnesian War (431–404 BC) fought between two factions led by Sparta and Athens, and admirably chronicled by Thucydides. The ensuing period was covered by Xenophon in his *Hellenica*. The complex and somewhat fragmentary topography may have been one factor that encouraged federalism and *sympoliteia* (union of states). The hegemony of Sparta promoted a regional solidarity, though it was never complete. Spartan domination of the Peloponnese was followed by Macedonian rule which ended with the Roman conquest of 146 BC. During the Hellenistic and Roman periods the southern coastal cities of Gythium and Methone played an increasingly important role as useful stations on long-haul east–west routes; and Methone, in particular, maintained its importance in this regard until the 19th century. It had been mentioned by Homer as being "rich in vines", and was famous for its wine and bacon under the Venetians, who built a fort to protect the shipping route around the Peloponnese.

Historically, the Peloponnese is one of the most famous parts of Greece. It includes such well-known sites as Corinth, Epidaurus, Mistra, Mycenae, Olympia, and Sparta. It has the most varied ruins of ancient Greece, making it one of the best-known centres of tourism. It is therefore not at all surprising that Pausanias, in the latter half of the 2nd century AD, devotes the greater part of his *Guide to Greece* (books 2–8) to a description of the Peloponnese and its historic sites. Blessed with abundant physical beauty and replete with important archaeological sites, the Peloponnese is a land every corner of which evokes some ancient myth. Its cities, towns, and spas were important centres in antiquity and remain so to the present day.

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PELOPONNESIAN WAR 431–404 BC

The Peloponnesian War is the name given to the great conflict between Athens and Sparta and their respective allies that broke out in 431 BC and ended with the surrender of Athens in 404 BC. Warfare was not continuous: ten years of fighting (often called the Archidamian War after the Spartan king Archidamus II, who led the first three invasions of Attica) were concluded by the Peace of Nicias in 421 BC; eight years of uneasy peace and occasional clashes followed, during which the Athenians' great Sicilian expedition was disastrously defeated (413 BC), before the peace was abrogated (also in 413) and the final phase, sometimes known as the Ionian War, began.

The Thirty Years' Peace of winter 446/45 BC, which had ended the earlier period of sporadic warfare between Athens and Sparta, had removed all Athenian footholds from the Peloponnese and the isthmus of Corinth and appeared to regulate

relations between the two states for the future. But the Athenians' control of the subject allies that formed their empire was unimpaired and, when their continuing expansionism led them in 433 BC into actions over Corfu, Potidaea, and Megara that were not against the letter of the peace, but were seen by the Spartans' most influential allies, the Corinthians, as against its spirit and hostile to themselves, the Spartans decided to go to war if the Athenians did not back down (late 432 BC). Despite some busy Spartan diplomacy, Pericles persuaded the Athenians to stand firm and hostilities began in spring 431 BC, with the Spartans widening the issues by demanding that the Athenians free their subject allies (Thucydides, 1. 139).

At the start the Spartans expected to achieve their aims quickly by invading Attica, provoking the Athenians into battle and defeating them, an expectation shared, says Thucydides (7. 28), by most other Greeks. But, although they led Peloponnesian armies into Attica in five of the first seven years of the war and did a great deal of damage to Athenian agriculture, they could not draw the Athenians out to fight, an assault on their fortifications being out of the question. Meanwhile any hopes they had of challenging Athenian naval power proved groundless. Without the resources to build and man a large enough fleet, they tried to obtain Persian help, but the Persians were not interested so long as Athenian naval power was unimpaired, and the same factor deterred Athens' maritime allies from rebelling and transferring their money and rowers to support the Spartans; in the first ten years of the war just one of them, Lesbos, revolted in 428 BC and in 427 BC learned the hard way that the Spartans could do nothing effective to help them. One area of the Athenian empire, the Chalcidice peninsula, was vulnerable to the Spartans' land power, but they were slow to exploit this advantage, despite the fact that the Corinthians had been able to send a small army to the area in 432 BC to help Potidaea and that the Potidaeans did hold out under siege until winter 430/29 BC, while other smaller rebels nearby were never subdued. Eventually in 424 BC Brasidas did take a force to Chalcidice and, despite having only 1,700 hoplites, who were volunteers and liberated helots, won over a number of the Athenians' allies and their substantial colony at Amphipolis.

The Athenians' unassailable fortifications and their dominant fleet kept them safe from immediate danger provided that they avoided major battles on land, but, despite Pericles' public confidence in their financial strength (Thucydides, 2. 13), they were not adequately funded for a long war. It is possible that Pericles, who evidently directed their strategy, planned to use the fleet for offensive operations and that the attack he led on Epidaurus in spring 430 BC was the beginning of them, but the onset of the plague at that moment put an end to any such notions. Lasting two and a half years, its severity was exacerbated by the congestion caused by refugees from the countryside, where the longest of the Peloponnesian invasions, lasting 40 days, was in progress, and it seems that overall the Athenians lost from it up to a third of their fighting men. In the short term their war effort was brought to a standstill and they unsuccessfully sent envoys to Sparta to negotiate terms for peace, before Pericles rallied them; he himself died of the plague in autumn 429 BC and thereafter, in Thucydides' view (2. 65), his steadying influence was sorely missed. The Spartans, however, failed to exploit the Athenians' difficulties and their recovery was spirited. They reacted vigorously to the revolt of Lesbos in 428 BC, raising 200 talents from the first ever property tax on citizens, and crushed it the following spring.

After some small-scale offensive operations in 427 and 426 BC, including the dispatch of 20 ships to support their allies in Sicily against the Syracusans, in the summer of 425 BC the Athenians won a major victory near Pylos in the southwest Peloponnese. A fleet of 40 ships en route for Sicily was used by the enterprising general Demosthenes to fortify a small peninsula. A Spartan attack on the fortifications failed, the Spartan fleet that entered the bay was defeated, and a Spartan force that was put on the island of Sphacteria at the bay's entrance was cut off. The Spartans thereupon obtained a truce, so that they could send envoys to Athens about peace, and were evidently ready to ignore the interests of their allies on whose behalf they had claimed to go to war, in order to remove the Athenians and rescue their men. The Athenians, however, prudently demanded the concession of footholds on the isthmus and on Peloponnesian coasts that they had held before 446 BC as a guarantee that the Spartans would not renew the war within a few years once they had surrendered their advantage, and negotiations broke down. The Athenians then kept the Spartan ships that had been given as surety for the truce and later stormed Sphacteria, taking prisoner 292 hoplites, whom they held in Athens as hostages against any further invasions of Attica. Early the following summer (424 BC) they captured the island of Cythera, off the south coast of Laconia, and, using it and Pylos as bases for ravaging Spartan territory and as refuges for Spartan serfs, they had high hopes of victory; to pursue this, the previous winter they had decided to increase their revenue from their allies to about three times the prewar figure.

At this point, however, things went wrong for the Athenians. First, their 60 ships returned from Sicily unsuccessful after the Greek cities there had made peace with one another. Then an attempt to win over Megara, whose territory they had raided regularly since 431 BC, failed. This setback was not disastrous, but in the autumn an ambitious attack on Boeotia ended with a defeat in a pitched battle near the frontier close to Delium in which 1000 precious hoplites were lost. By this time Brasidas' small army had reached Chalcidice and was winning over allied cities, and, when he had crowned these successes with the capture of Amphipolis, the Athenians agreed to conclude a one-year truce (spring 423 BC). Although it did not lead, as the Spartans hoped, to a permanent peace, there was little fighting in southern Greece when it expired. The Athenians concentrated on trying to recover lost allies in Chalcidice; first Nicias and then Cleon had some success, but, when the latter was defeated and killed in a battle outside Amphipolis, in which Brasidas also perished, they too were ready to compromise.

The treaty as agreed in spring 421 BC, the Peace of Nicias, provided *inter alia* for the return of prisoners, the withdrawal of the Athenians from Pylos and Cythera, and the restoration to them of Amphipolis and their revenues from Chalcidice, but its terms were never fully implemented. The Athenians gave back the prisoners from Sphacteria, but, because the Spartans could neither force the Amphipolitans to return to their control nor persuade other important allies, including Corinth and Thebes, to ratify the treaty, they kept Pylos and Cythera. In a flurry of diplomatic activity, which led to some renewed warfare, it looked at one time as if Sparta and Athens might combine

against the former's allies; and then that the Spartans might be defeated by a combination of the hitherto neutral Argives and other disaffected allies, Elis and Mantinea, backed to some extent by Athens; but the Spartans won a crucial battle near Mantinea in 418 BC and recovered the leadership of the Peloponnese, although the Argives remained allies of Athens.

Athenians had fought at Mantinea, but the peace remained in force with neither side eager to resume full-scale war. Nevertheless, the Athenians were still restless and, disinclined to do the hard work necessary to recover Amphipolis and their control of the north, their thoughts turned to Sicily, where, according to Thucydides (3. 86 and 4. 65), they had conquest in mind when sending the ships in 427 and 425 BC. In the spring of 415 BC, lured by an appeal from non-Greek Segesta, they voted to send a fleet of 100 triremes and an army to the island under Nicias, Alcibiades, and Lamachus in the hope that they would conquer it and use its resources to achieve final victory over the Spartans at home.

Despite a slow and indecisive start, the recall of Alcibiades to face a charge of sacrilege and the death in battle of Lamachus, the Athenians in summer 414 BC were about to put Syracuse under siege and it seemed likely to surrender, but the arrival of Gylippus, sent out by the Spartans, on the advice of the exiled Alcibiades, to organize the city's defence, turned the tide and in the winter the Athenians became more besieged than besiegers. Nicias recommended the recall of the expedition, but the people at home preferred to send substantial reinforcements (spring 413 BC). This was to no avail, because the Athenians failed to regain the initiative and, with the Syracusans establishing naval superiority and Nicias unwilling to agree to withdrawal without the people's approval, the whole force was destroyed.

This defeat was catastrophic for the Athenians, not only for the losses of men, ships, and money, but also for its consequences in the Greek homeland. The Spartans had already declared the war renewed and established a garrison at Decelea in northern Attica that served as a base for year-round ravaging and a refuge for some 20,000 slaves over the remaining years of the war. They now began to send fleets into the Aegean, where the destruction of Athens' naval power was encouraging its allies to revolt and the Persians to intervene in the hope of recovering control of the Asiatic Greeks.

The Athenians, however, despite internal discord, fought back, matching the Spartans almost ship for ship, limiting the revolts of allies and recovering some cities, while the Persians restricted their commitment to intermittent financial backing of the Spartan navy, even when in winter 412/11 BC the western satraps guaranteed their support in a treaty in which the Spartans recognized the Persian king's right to rule over all the Asiatic mainland. The Athenians indeed survived a shortlived oligarchic revolution in the summer of 411 BC and their fleet, which had remained loyal to democracy and had shrewdly accepted Alcibiades back from exile to join its leaders, won two battles, in the second of which, off Cyzicus in the Propontis (Sea of Marmora) in the summer of 410 BC, all the Spartan ships were destroyed or taken.

A Spartan peace offer was now rejected and the Athenians pressed on with the recovery of lost allies, but the process was incomplete in 407 BC, when the arrival in the eastern Aegean of a competent Spartan admiral, Lysander, coincided with the Persian king's appointment of his son Cyrus to take charge in the west and make effective his support of the Spartans. Lysander's victory at Notium led to Alcibiades' withdrawal into exile, an indication of continuing dissension at Athens. This again showed itself in 406 BC, when, after the Athenians had defeated Lysander's successor off the Arginusae islands, eight of their victorious generals were prosecuted for failing to pick up the survivors in a storm and six of them were executed. Then in 405 BC Lysander was restored to the command, lured the Athenian fleet into the Hellespont (Dardanelles), and in a surprise attack took 170 of their 180 ships almost without a fight, as they were beached for the night near Aegospotami. It was the decisive blow. Up to this point the war could still have ended in stalemate or even victory for the Athenians, but these were their last ships and now Lysander cut their corn-supply lifeline, took over their allies, and expelled their colonists from the Aegean and then joined in the siege of Athens, which ended inevitably in surrender (spring 404 BC). Some of the Spartans' allies wanted Athens destroyed, but Sparta was content to reduce the Athenians to the status of a subject ally, with most of their fortifications demolished and, soon after, their democracy replaced by a repressive pro-Spartan oligarchy.

The war has always been seen as a turning point in the history of ancient Greece. Both protagonists, the victors as much as the vanquished, were irremediably weakened. A serious shortage of manpower combined with defects of character and judgement to bring down the Spartans' new Aegean empire within ten years and only Persian support enabled them to keep their control of the Peloponnese as far as 370 BC. The Athenians recovered remarkably and briefly were again the leading city, but they lacked not only the wealth, but also the vigour and dynamism of their 5th-century BC ancestors. Neither of these states nor the Thebans, whose strength and confidence grew significantly during the war, could effectively unite Greece against the expansion of Macedonian power under Philip II. In 338 BC he defeated the combined army of Athens and Thebes at Chaeronea and then could afford simply to ignore the Spartans' refusal to join in his settlement of Greek affairs.

This was certainly a sorry episode in Greek history not only for the long-term damage it inflicted on Greek freedom, but also for the extremes of cruelty practised by some of its participants. In 427 BC the Spartans killed all the surviving defenders of Plataea, an ally of Athens, when they surrendered; in 421 BC the Athenians did the same to Scione, a rebellious ally; and in 416 BC, during the formal period of peace and following no known act of recent hostility by the victims, they attacked Melos and on its surrender killed all the men of fighting age and sold the rest of the population into slavery; in 413 BC the Syracusans butchered many defenceless Athenians in the final disaster and sent the rest to the stone quarries. Other atrocities were committed when within cities the partisans of the two protagonists clashed in bitter civil strife (*stasis*), most notably at Corfu in 427 BC.

In contrast to these barbarities were the admirable doggedness and heroism of the defenders of Plataea (429–427 BC) and especially the remarkably resilient spirit of the Athenians that enabled them to recover from the plague of 430–428 BC and the Sicilian disaster of 413 BC. Remarkable too were their continued public patronage and enjoyment of art and drama through the times of crisis right to the end. The Erechtheum on the Acropolis was built during the war and many of the

surviving tragedies of Euripides, some of those of Sophocles, and 9 of Aristophanes' 11 extant comedies come from these years, performed at public festivals at public expense. The war, however, provided the essential comic situations of Aristophanes' *Acharnians* (425 BC), *Peace* (421 BC), and *Lysistrata* (411 BC), and the tragic consequences of warfare were vividly echoed in Euripides' *Troades* (415 BC) and *Hecuba (c.* 424 BC). But its greatest contribution to the development of the Hellenic tradition was in inspiring Thucydides to write his history. With his strict sense of relevance and careful collection and treatment of information he set standards of objectivity and scientific analysis that no other ancient historian, Greek or Roman, could match, while at the same time being a master of dramatic narrative and at conveying the tragic quality of history.

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See also **Political History 490–323 BC**

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PERGAMUM

City in northwest Asia Minor

Pergamum was the elegant capital of the Hellenistic kingdom of the same name that was founded by the Attalid dynasty in the early 3rd century BC. The city, in the region of ancient Mysia in northwestern Turkey, was *c.*20 km from the sea and was connected to its port at Elaea by the Caicus river. Pottery sherds show that there was Greek settlement at this site as early as the 8th century BC; in the early 5th century BC when the territory was under Persian control its governor was a Greek from Eretria. After the conquests of Alexander the Great in the late 4th century BC, Lysimachus, one of Alexander's successors, took Pergamum as part of his kingdom. He deposited a sizeable portion of his royal treasury there under the care of his general Philetaerus. In 281 BC Lysimachus was killed in battle, and Philetaerus, seizing the moment and the treasury, installed himself as ruler of the new kingdom of Pergamum and founder of the Attalid dynasty. With Athens having been in decline since the 4th century BC, the Attalids set as their goal the preservation of Classical civilization and Pergamum was to be a new Athens, the centre of Greek culture and art. During the reign of the fourth Attalid king, Eumenes II (197–159 BC), Pergamum was transformed from a modest Greek city into a magnificent Hellenistic metropolis with a population of more than 100,000 people. When the last king, Attalus III, ceded his estates to Rome in his will in 133 BC, Pergamum became the capital of the Roman province of Asia. The city continued to grow under the Romans and, at its peak in the 2nd century AD, the population was about 150,000.

The site is divided into two areas – a lofty acropolis (*c.*400 m high) and the plain surrounding it. Remains of numerous public buildings and private houses are found in both areas. The walled citadel was terraced from north to south providing building levels that were connected by a winding road. With the exception of a few andesite structures, the view from the plain was of white marble Hellenistic and Roman buildings rising one above the other. At the summit, an aqueduct supplied water that was piped to public fountains, baths, and private dwellings. Nearby were military barracks, storerooms, a large temple honouring the deified Roman emperor Trajan (AD 98–117), and the "palaces" of the Attalid kings, which were merely large peristyle houses. On the second terrace was the sanctuary of Athena, honouring the patron deity of the city, which contained a small 3rd-century BC andesite Doric temple surrounded by spectacularly carved 2nd-century BC marble stoas. The north stoa provided access to the renowned Pergamene library. Behind the library and the Athena sanctuary, built into the steep southwest face of the citadel, is the precipitous theatre (it has the steepest *cavea* of all Greek theatres), with seating for 10,000 persons. The area at the base of the theatre is so narrow that the wooden stage building was removed when not in use so that it would not impede pedestrian movement. On the third terrace is the foundation of the Pergamum Altar (*c.*165 BC), arguably the most spectacular of all monuments from the Hellenistic period. This large square marble structure (*c.*35 × 35 m), which has been partially reconstructed in the Berlin Museum, consisted of a tall podium adorned with over-lifesized figures in very high relief depicting the Battle of the Gods and the Giants. A broad staircase led up to an Ionic peristyle court behind whose columns was a lengthy relief showing the life of the hero Telephus, mythic founder of Pergamum and adopted ancestor of the Attalids. The function of the "Altar" has been debated since its excavation in the late 19th century. Is it an altar, a victory monument, a dynastic monument, or a *heroon* (i.e. a cult building for the worship of a hero)? The monument is in the form of a sacrificial altar (although it is much larger than all other examples) and the sculptural themes can be related to Attalid military victories and the political achievements of the dynasty. The lengthy relief telling the story of Telephus suggests

most strongly, however, that its primary function was as his *heroon* (Webb, 1998). Among the remaining buildings on the terraced citadel are the *heroon* of the deified Attalid kings and several large complexes including the upper market or agora, the sanctuary of Demeter, the sanctuary of Hera, three gymnasia, large public baths, and the lower agora. There were also private houses, individual shops, small public baths, workshops, a tavern, and other establishments important to everyday life. At the base of the citadel was the main gate in the city wall.

The city in the plain was built primarily in the Roman period and contained a stadium, an amphitheatre seating 50,000, a theatre seating 30,000, various smaller public buildings, houses, tombs, and the vast temple of the Egyptian gods. From the area of the theatre a colonnaded street led to the famed healing centre, the sanctuary of Asclepius. The cult at Pergamum, founded in the 4th century BC, experienced continuous expansion and by the 2nd century AD the Asclepieum was the principal healing centre in Asia Minor. Medical treatment incorporated physical therapies, e.g. diet, exercise, baths, etc., but also spiritual procedures, e.g. incubation (dream therapy). The huge complex consisted of a large colonnaded court around and within which were temples, a library, a theatre seating 3500, fountains, pools, men's and women's latrines, sleeping rooms for incubation, and a large treatment building.

Pergamum declined as the power of the Roman empire waned in the 3rd century AD. The buildings on the lower acropolis, in the surrounding plain, and the sanctuary of Asclepius were abandoned with the exception of the temple of the Egyptian gods, which was converted into a Christian basilica. The upper acropolis continued in use, but comprised mostly modest houses built into and over the ancient structures. The city suffered severe damage from foreign invaders on a number of occasions, and the upper acropolis was refortified at least three times – in the 3rd, 7th, and 12th centuries. Even though Pergamum was home to one the "seven churches" of Asia Minor (Revelation 1: 11), was a major intellectual centre until the end of the 4th century, and was made a bishopric at the end of the 14th century, it had a small population and was relatively obscure throughout the Byzantine period. When the future emperor Theodore Laskaris visited the site in the mid-13th century, he recalled the greatness of the ancient city and equated the contemporary poorly constructed dwellings that lined the narrow streets to mouseholes in houses.

While the city of Pergamum as a whole was the glory of the Attalids, and the Pergamum Altar is the most important structure for modern admirers of the dynasty's accomplishments, the building that was central to Pergamum's role in the preservation of Classical civilization was the library. Second only to the library at Alexandria in the ancient world, it is estimated to have owned 200,000 volumes. Since the kings supported scholars in all the academic disciplines, one can assume that the holdings consisted of works representing the entire range of Greek learning. It is not clear what eventually happened to the contents of the library. In his *Life of Mark Antony* Plutarch relates a story that Antony gave the entire collection to Cleopatra as a gift. But Plutarch himself is unsure of the story's veracity, and there is no evidence that it is true. Since Pergamum continued as a centre of scholarly pursuits for four centuries after the deaths of Antony and Cleopatra, it is likely that at least a portion of the ancient collection remained intact during that period. In connection with the development of the library, Pergamum was also famous for the production of parchment, which eventually replaced papyrus as the preferred writing material in antiquity. Contrary to Varro's account (Pliny, *Naturalis Historia*, 13. 70), the Pergamenes did not invent parchment, for treated animal skin was used as a writing material very early in the Near East, and Herodotus (5. 58) mentions that it was used by the Ionian Greeks in the 6th century BC (Finegan, 1959, pp. 390–99). It is likely that Pergamum's reputation was based on the fine quality and large quantities it produced not only for consumption at home but also for export to Rome. The increased use of parchment facilitated the development of the more convenient and accessible codex (paged book), which supplanted papyrus and parchment rolls by the 4th century AD.

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See also **Attalids**

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PERICLES *c.*492–429 BC

Athenian statesman

Pericles was born around 492 BC. His mother's family, the Alcmaeonidae, had been prominent in Athenian politics throughout most of the 6th century BC. His maternal great uncle Cleisthenes held the office of eponymous archon in 525 BC. The family spearheaded efforts to overthrow the tyranny held by Pisistratus' sons. That accomplished, Cleisthenes "took the common people into his political coterie" (to paraphrase Herodotus) and reformed the constitution.

Pericles' father Xanthippus was a hero of the Persian Wars. He showed himself to be firm, even ruthless, in siege operations against a Persian garrison at Sestos on the Hellespont. Earlier in his career he had prosecuted Miltiades, a prominent member of a rival family, and very nearly got him condemned to death. This antagonism between the two families was to continue into the next generation.

If we are to believe Plutarch, a certain shyness, a degree of social reticence, seems to have been one trait of Pericles' personality. For his entry into the public sphere Pericles acted as *choregos*, financial backer, for Aeschylus' drama about the Persian Wars, *Persians* (472 BC). Although Themistocles is not named, his spirit pervades the play. Themistocles had shrewdly foreseen the importance of maintaining an effective fleet of warships, and he persuaded the Athenian voters to forgo a onetime dole so that such a fleet could be built. Pericles was later to make maritime invulnerability the cornerstone of Athenian policy.

Pericles' first serious political opponent was Miltiades' son Cimon. As a general and public figure he garnered personal support through private largesse and especially by using war booty to improve the city's appearance and amenities. From him Pericles appears to have learned that such benefactions were a sure way to win votes.

Cimon was by disposition conservative and had a personal affinity for things Spartan. After a stunning series of victories against the Persian forces he made two serious mistakes. He laid himself open to charges of mismanagement after completing a lengthy campaign to bring a powerful rebel state, Thasos, back into the alliance. Pericles was among Cimon's prosecutors, but the attack failed (463 BC). Sparta was also reeling from the aftermath of an earthquake. Its numerous subject class, the helots, had revolted and the Spartans called on the Athenians for help. Cimon led a large Athenian force to aid Sparta, Athens' "yokemate", as he termed it, but when these troops were inexplicably sent away, the people's anger turned against him and he was ostracized, that is, obliged to leave Athens for a ten-year period. Pericles and a political associate, Ephialtes, saw their chance to carry out a reform of the senior judicial council at Athens, the Areopagus. This reform signalled a change in the direction of Athenian politics: from now on more power was to be wielded by the common people, and probably at this time the ordinary citizens who sat on the numerous Athenian juries were given a stipendiary daily allowance for the days when the courts were in session.

Athens' foreign policy suffered a serious setback in 454 BC. A revolt by a Libyan prince from the Persian empire failed, and two separate Athenian and allied support expeditions were lost. If Pericles supported the venture, the debacle appears not to have been brought up against him. During this period he was also taking careful note of the successes of other prominent Athenian commanders, such as Myronides and Tolmides. In 455 BC the latter led an Athenian naval force around the Peloponnese, and won some important victories. Not to be outshone, a few years later Pericles led a similar force that tried with only limited success to establish an Athenian presence in northwest Greece. Pericles may also have learned from Tolmides the advantages to be gained from the system of "cleruchies", pockets of Athenian settlers sent out to troublespots to prop up Athens' interests. In 451 BC Pericles sponsored a measure to restrict Athenian citizenship to those who could prove that both their mother and their father were citizens. What Pericles hoped to achieve by this measure is uncertain.

By the mid-5th century BC Pericles had a clearly formed vision of Athens as head of a maritime empire so powerful that the Spartans would have to concede superiority to the Athenians. His ambitions were fuelled by the huge financial surplus in the treasury of the Delian League, since 454 BC (probably) housed in Athens. Against strident opposition from such conservatives as Thucydides, son of Melesias, who was possibly related to Thucydides the historian, Pericles proposed that some of the money should be diverted to pay for an extensive building programme. The sources name Pericles himself in connection with a few of the projects, especially the statue of *Athena Parthenos* ("the Maiden"), executed by the Athenian sculptor Phidias, and an elaborate new odeum, a music hall that abutted the theatre of Dionysus, and it seems clear that he was the driving force behind the whole enterprise. These vast public works were intended not only to beautify Athens but also to give employment to its people. An estimated two to three thousand individuals were continuously employed over a period of 16 years, from 447 BC to the outbreak of the war with the Peloponnesians in 431 BC.

Some ancient sources assert that a formal peace was concluded between Athens and its allies and the king of Persia. A formal treaty around 449 BC would make it easier to explain the freedom that Pericles felt in applying to the building programme funds collected for military purposes. On the other hand, several ancient authorities claimed that the inscription purporting to record the peace was a forgery. Whatever the truth of the matter, there was a cessation of hostilities after some important successes against the Persians around 450 BC by league forces under Cimon (now returned from ostracism), so that Pericles would not have been taking a great risk in redirecting part of the league's war chest to other purposes.

In 449 BC or 448 BC the Spartans launched a "Sacred War" to defend (as they claimed) the Delphians' claims to be supervisors of Apollo's shrine. Pericles responded with a counterexpedition that restored control to the original claimants, the Phocians, with whom Athens had entered into an alliance some years before. Inscriptional and other evidence suggests serious disaffection among the allies, especially in Ionia, in the late 450s BC. In every case Athens was quick to react, by armed intervention and other means. Although the sources do not connect Pericles' name directly with any of these measures, there can be little doubt that he was prepared to take all necessary steps to see that the allies were kept tightly under Athens' control. In 446/45 BC two important nearby states, Megara and Euboea, rebelled. Pericles responded with quick military action and both revolts were quashed. A Peloponnesian force that had advanced as far as Eleusis to lend support to the rebels returned home without having accomplished anything, and in the upshot a treaty of peace for 30 years was signed between the two superpowers: Athens repudiated claims to certain areas in the Peloponnese and Acarnania in northwest Greece, and in effect agreed to extend its empire only by sea. A sop had been thrown to the Spartan Cerberus, but it was becoming increasingly clear that it would not remain permanently quiescent.

In 440 BC Athens' powerful island ally Samos revolted. Again, Pericles' response was quick and tough. After several naval engagements and a protracted siege, the rebels were brought to heel. One of Pericles' colleagues for the first year of the campaign was the dramatist Sophocles, and several anecdotes survive of the shared command. Samos' longterm rival, Miletus, had figured in the preliminaries to the war, and this gave the gossipmongers and the comic poets a golden

opportunity to spread the report that Pericles had got Athens involved as a personal favour to his mistress, Aspasia, who had originally come from Miletus; he had been in a relationship with her for some years after his own marriage to an aristocratic lady, not named by our sources, had broken down. By Aspasia Pericles had an illegitimate son, Pericles the Younger.

By the early 430s BC war between Athens and Sparta and their respective allies appeared inevitable. Athens responded to various provocative incidents with increasing firmness, and Pericles himself threw down the gauntlet with one or more decrees intended to cripple commercially the neighbouring state of Megara, an erstwhile ally of Athens but whose culture and language linked it firmly with Dorian Sparta. The Spartan side voted for war in the spring of 432 BC and invaded Attica a year later. Pericles himself survived the war's outbreak by only two years, succumbing in the autumn of 429 BC to the effects of a plague of a now unspecifiable type. Pericles' own strategy of defence was partly to blame. He persuaded the Athenians who lived in the countryside – a substantial portion of the populace, according to Thucydides – to move to the city and refuse any challenge to a land battle. Such an encounter would inevitably be to the advantage of the Spartans, who had a near-perfect record in infantry fighting. Although the Athenians did not abandon Pericles' defensive strategy, out of intense frustration at their sufferings they briefly removed him from the generalship, only to reinstate him shortly afterwards. With a break of only a few years after 421 BC, when a peace treaty between the combatants was nominally in effect, the war dragged on until the Athenians had to witness not only defeat but the humiliation of looking on as their fortifications were dismantled by a Spartan occupying force in 404 BC.

The sources make out Pericles to have been a competent and popular general, but probably not a brilliant one. He had rivals, generals such as Tolmides and Myronides, whose achievements might have become part of the permanent record had they had their own eulogists, and he had colleagues in the generalship, men such as Hagnon and Phormion, in whose selection Pericles perhaps had a hand and on whose abilities and loyalty he knew he could rely. But the real reasons for Pericles' enormous popularity – he was reportedly re-elected to the generalship continuously from about 443 BC until his death – was that he had a vision of Athens' potential for greatness and he knew how to achieve it in practice. He possessed outstanding oratorical skills, a speaker on whose lips, to paraphrase the comic poet Eupolis, a kind of persuasiveness settled enabling him to outstrip his rivals like a champion runner. Above all, he was acknowledged as a man of personal and financial integrity. Plutarch crowns his praise by remarking that Pericles "did not increase the property left to him by his father by one drachma", in marked contrast to what was believed about other popular leaders. His death at a critical moment in the history of Athens was a cruel stroke, with parallels on the contemporary Athenian tragic stage.

"The Periclean age" has become a useful label for Athens in the period 460–430 BC, a time of outstanding achievement in drama, philosophy, architecture, and the plastic arts. It may be an overstatement to say diat Pericles was personally responsible, but it can hardly be denied that Athens' accomplishments were due in large part to the high degree of material prosperity that control of its empire had brought to the city, to his vision of what could be achieved through wise use of public funds, and to his firm hand at the tiller of the city's affairs. His carping critics might call it a tyranny, but in fact it was responsible democratic government in which the individual most fitted to lead was given a mandate by the citizens to lead them, and for a period of sufficient duration that his best expectations of them were given the chance to be realized.

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See also **Athens; Classical Period; Peloponnesian War; Political History 490–323 BC**

Biography

Born *c.*492 BC the son of Xanthippus and great-nephew of Cleisthenes, Pericles was *choregos* (financial backer) for Aeschylus' *Persians* in 472. BC. In 463 he was among the prosecutors of Cimon. After the ostracism and death of Ephialtes, Pericles became the popular leader of Athens. His vision was of Athens at the head of a maritime empire. He instituted a vast programme of public building works. His ambitions for Athens led to the outbreak of the Peloponnesian War. He died of plague in 429 BC.

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PERSIAN WARS

The Persian Wars are usually taken to refer to the two Persian expeditions to Greece in 490 BC and 480/79 BC. They imply that a continuous state of war existed between Greece and Persia during this period, thus portraying Persia as being preoccupied with the subjection of Greece. In fact, a distinction should be made between the campaign of 490 BC, under the command of two Persians, Datis and Artaphernes, and the invasion of 480/79 BC, led by the king, Xerxes. The campaign of 490 BC should be seen as a direct reaction to the involvement of Athens and the Euboean city of Eretria in the uprising of the Greek cities of Ionia, known as the Ionian Revolt (499–492 BC); the expedition of 480/79 BC was a Persian invasion, prepared on a large military scale and led by the king himself. The term "Graeco–Persian war" would perhaps more accurately describe the military aggression of 480/79 BC.

In 499/98 BC, under the leadership of Aristagoras, tyrant of Miletus, some of the Greek cities of Ionia revolted against Persia. By the time of the Ionian Revolt, tyrannical rule in the Greek cities of Asia Minor, which were under the control of the Lydian kingdom, was already established as the favoured form of government, and it continued after the Persian conquest of Lydia in 546 BC. This was in line with the Persian policy of allowing local forms of government, language, culture, and religion of the different peoples of the empire to continue, and through this policy of political tolerance limiting resistance to Persian rule. Aristagoras had been approached by exiles from Naxos to help them regain power on the island; after having obtained the approval of the Persian king Darius I (522–486) and of Artaphernes, the Persian satrap of Lydia and brother of Darius I, he left for Naxos. If successful, this campaign would increase Persian political influence in the Aegean, and establish Aristagoras' personal standing with the king. However, after an unsuccessful siege, which lasted four months, the Persians were forced to leave Naxos, and Aristagoras, faced with the personal consequences of the failed expedition, revolted against Persia, abandoning tyrannical rule in favour of *isonomia* (equal rule), with the intention of gaining popular support from other Greek cites for his revolt. His attempts to win Spartan support for his movement failed when the Spartan king Cleomenes refused to become involved in a military conflict overseas. Only Athens and the Euboean city of Eretria offered support, sending 20 and five ships respectively. This fleet arrived in Miletus in the spring of 498 BC, and a first attack was directed against the Lydian capital Sardis. The city was successfully defended by Persians and Lydians, but when a fire broke out the city quickly burnt down. A battle near Ephesus initiated by the Persians and Lydians against the Ionians forced the Ionians to retreat to their respective cities (Herodotus, 5. 102). After this defeat the Athenians and Eretrians abandoned the revolt and returned to Greece.

Gathering momentum, the revolt now spread to cities in the Hellespont, Caria, and Cyprus. Here the rebel Onesilus was killed, probably in the summer of 497 BC, forcing the Ionian ships to leave the island. Between 497 BC and 496 BC Daurises and Hymaees, both sons-in-law of Darius I, successfully fought the rebellious cities in the Hellespont, while Artaphernes and Otanes launched attacks in Caria. Aristagoras, having lost control over the revolt, fled to Myrcinus in Thrace, where he was killed (Thucydides, 4. 102. 2–3).

Persian military and naval forces retaliated with a battle off the coast near Lade and an attack on Miletus, which was taken in 494/93 BC. Its inhabitants were taken to Susa and resettled near the Red Sea. Following Miletus' defeat, other cities surrendered, and part of their population likewise was taken to Persia. In 493 BC Artaphernes began the reorganization of Ionia, and in the spring of 492 BC Mardonius, son-in-law of Darius I, was sent to Asia Minor to continue implementing political reforms of the cities of Ionia (Herodotus, 6. 43). Although Herodotus tells us that Mardonius introduced democracy to the cities of Asia Minor, we know of at least two cities, Lampsacus and Samos, which continued their tyrannical rule after 492 BC.

In preparation for a punitive campaign to be led against Athens and Eretria, the Persian king sent an embassy to Greece

in 491 BC demanding from the individual states earth and water, the symbolic signs of the recognition of Persian supremacy. Thrace, Macedon, Thasos, Aegina, and other islands complied with this demand, but neither Athens nor Sparta submitted. In 490 BC the campaign was led by Datis and Artaphernes, the son of Artaphernes (Herodotus, 7. 74). Their first target was Naxos, which, offering no resistance, was burnt and looted. From there they proceeded to Eretria and took the city after a seven-day siege (Herodotus, 6.100–01). A few days later the Persian fleet landed near Marathon, upon the advice of Hippias, the former Athenian tyrant who had found exile in Persia, and who now acted as adviser to the Persians. In the ensuing battle the Persians were defeated by the Athenians, who were under the command of Miltiades. Retreating to Phalerum, the Persians then decided to abandon the attack and to return home. Neither Herodotus' account of the battle nor his casualty figures (6400 Persian dead, but only 192 Athenians) can be given any credibility. While Plataea had sent 600 soldiers in support of the Athenians, Spartan forces arrived a day after the battle.

The Battle of Marathon marked the first military encounter between Greeks and Persians on the Greek mainland, and, although it was won through favourable circumstances and good fortune rather than by military superiority, it had a huge ideological impact on the Greeks. For the Persians, their punitive mission had been successful as far as Naxos and Eretria were concerned. Persian interest in Naxos in 499 BC and the retaliation of 490 BC in fact identify the Persian objectives for their military action, i.e. to assert Persian control in the Aegean. In this regard the campaign of Datis and Artaphernes had been successful. The limited military force used in this campaign, the fact that Darius I had sent envoys to demand earth and water from the Greek cities in order to avoid involving other Greek states, and the fact that the king himself did not participate in this campaign do not allow us to argue that the Persian campaign of 490 BC had been an attempt to subject Greece as part of an expansionist plan.

Nevertheless, Athens still had to be punished, and it meant that a new expedition was prepared over the next four years in which Darius I gathered an army from all parts of the empire, while the king's fleet was prepared and transport vessels were built (Herodotus, 7. 1). But in 486 BC a revolt which broke out in Egypt claimed priority; because Darius had died, aged 66, in December of that year, it fell to Darius' son and successor Xerxes to quash this revolt, which he successfully did by 485/84 BC. Xerxes then turned his attention to the expedition to Greece, carrying out his father's military plans. In 482/81 BC he probably also quashed a revolt in Babylonia under Belshimanni. In Greece the victory at Marathon had not resulted in the political unity of Greek states. A war between Athens and Aegina had broken out and lasted until 481 BC. Themistocles' proposal of 483/82 BC to built an Athenian fleet was accepted as a military plan against Aegina, and was on a par with the fortification of the Piraeus, the Athenian harbour, which Themistocles had advocated during his archonship ten years previously. The discovery of the silver mines at Laurium in 483/82 BC meant that Themistocles now possessed the finances to back his plan. At the same time Persian preparations for a military attack on Greece began. First, Persian envoys were sent to Greece to demand earth and water, which were offered by Thessaly, the people from the Malian Gulf, Locris, Thebes, and Boeotia. No ambassadors were sent to either Sparta or Athens. After Xerxes had gathered his army in Sardis, he crossed the Hellespont and marched via Dorsicus to Therma in Thessaly (Herodotus, 7. 127–31). At the battle of Thermopylae, which was fought on land, the Persians defeated the Spartan troops under the command of Leonidas, but a naval battle fought off Cape Artemisium on the same day was indecisive, the Persian fleet having suffered heavy losses in a storm, and the Athenians withdrawing their ships to Salamis after three days of battle. The Persian army advanced through Phocis and Boeotia to Attica and seized the Acropolis of Athens, the inhabitants already having been evacuated to Salamis and Troezen. With Attica under Persian control the Peloponnesians began building fortifications at the isthmus of Corinth, and those Peloponnesians who were still in Attica abandoned their positions. In September 480 BC Xerxes attacked the Greek navy at Salamis but the narrow straits made it impossible for the large Persian vessels to operate and they suffered heavy losses. Xerxes withdrew his naval forces, which returned to Cyme and Samos, but Mardonius and 10,000 elite soldiers were left to continue the war on land, and to destroy the Peloponnesian fortifications in the next campaigning season. Through a Persian ally, Alexander of Macedon, Mardonius offered the Athenians a peace agreement, including the promise to rebuild the destroyed temples, but the Athenians refused. In the spring of 479 BC, after wintering in Thessaly, Mardonius proceeded through Boeotia without any opposition and retook Athens. The Athenians, having received no support from Sparta, had to evacuate the city again. A second envoy, Murychides, was sent to the Athenians, but he also failed to persuade them to accept the peace. Faced with an Athenian ultimatum, the Spartans finally sent 5000 Spartiates, 35,000 helots, and 5000 *perioikoi* (dwellers in dependent towns). At the ensuing Battle of Plataea Mardonius was killed and his death decided the outcome of the battle. The Spartans took the Persian camp and forced Thebes, who had remained loyal to Persia, to surrender. Their main Persian supporters were sent to Corinth and killed. The Persian troops, now led by Artabazus, returned via Thrace, Macedon, and Byzantium to Persia.

In Asia Minor, Chios and Samos began a revolt when the Spartan king Leotychidas was asked by six Chians to assist in a conspiracy against the tyrant Strattis, while on Samos people turned against Theomestor. In the face of the approaching Greek fleet on Samos Xerxes withdrew his naval forces to Mycale, where a battle with the Greek forces caused the defeat of the Persian army. The battle of Mycale marked the end of the Greek–Persian war of 480/79 BC. Over the next three years Samos, Byzantium, and the Hellespont were taken by the Greeks. For Xerxes his unsuccessful expedition to Greece had no repercussions in the Persian empire, where he continued to rule until his death in 465 BC, while for the Greeks the Persian Wars soon acquired the status of myth, laden with ideological propaganda. This was the beginning of Greek nationalism, marked by the Greeks' identification of themselves as Hellenes and the Persians as barbarians. In fact, neither during the period of 490 to 480/79 BC nor during the actual war of 480/79 BC had Greek political unity ever existed. Some Greek states had remained allies of Persia throughout that period, and during 480/79 BC the Greek states hardly acted as a unified force

against Persia. The political rift between the anti-Persian Aristides, who initiated the Delian League, and the anti-Spartan Themistocles after 479 BC showed that even within Athens political opinion towards Persia was divided. Yet ideologically the Battle of Marathon and the victories at Salamis and Mycale boosted Greek morale beyond reality. In retrospect the war between Greece and Persia had become the symbol of the fight for freedom fought by small states against the might of an empire.

The Greek–Persian wars quickly acquired a mythical dimension. Aeschylus' play *The Persians*, performed in 472 BC, shows a Hellenized version of the Persian court, the decadence of Persia, and the hubris of Xerxes, while an earlier play by Phrynichus, *The Fall of Miletus*, performed in 493 BC, was an embarrassing reminder for the Athenians of their half-hearted efforts to defend the freedom of the Greeks of Asia, and the author was fined 1000 drachmas. Herodotus' *Histories*, written around 430 BC, used the huge figures given for the Persian forces, in contrast to the small number of Greek forces, to demonstrate how successful a united Greece could be. Yet in his account Corinth, which fought against the Persians alongside the Greeks, was discredited, perhaps already in light of the political climate of the 430s BC in which Corinth emerged as an enemy of Athens. In antiquity itself the terms "Persians" and "Persian Wars" became powerful means of political propaganda. Augustus staged the Battle of Salamis in a specially excavated arena by the Tiber in 2 BC, the opposing sides being called "Athenians" and "Persians". In AD 39 Caligula's bridge across the bay of Naples was an imitation of the bridge which Xerxes had built over the Hellespont, used for a demonstration of military manoeuvres, during which the emperor paraded the son of the Parthian king Artabanus II (Josephus, *Antiquitates Judaicae*, 19. 5–6). Following Augustus, Nero also staged a sea battle in Rome, casting shadows on his intended war against Armenia in AD 57/58 (Dio, 61. 9. 6). In the later empire Lucius Verus in AD 161 and Caracalla in AD 214 took contingents of Spartan auxiliaries on their eastern campaign—symbolic gestures which were to reflect the Roman fight against the Persian/Parthian power. In AD 235 Gordian III staged a festival for the goddess Athena Promachus for the Athenians at Marathon, again a symbolic gesture made prior to his eastern campaign. In modern times the fight between the Greeks and the Persians received an additional propagandistic note. It became symbolic of the fight of Western Europe against the Orient. Greece, seen as the birthplace of democracy, architecture, literature, and philosophy, and which had defended its values against the oriental despotism of the Persian king, now represented European and Western values upheld against the perceived threat of the Orient, which became equated with despotism, decadence, and effeminacy.

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See also **Persians; Political History 490–323 BC**

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PERSIANS

The Persians were an Iranian people, identified by their language as Indo-Europeans. Earliest written records identify three different regions of ancient Iran inhabited by Persians: Parsua, southwest of Lake Urmia; Parsumash, in the central Zagros mountains in northwestern Iran; and Parsa, in the southwest. Persian settlement in Parsa (Greek Persis, modern Fars) is first attested in the 7th century BC, and was the result of a migration process which had begun early in the 1st millennium BC, followed by a gradual process of acculturation, in which Persians lived alongside the indigenous Elamite population. It is this region that gave its name to the first Persian empire, which stretched from Egypt and the eastern Mediterranean to the Indus river, and which lasted from 559 BC to 331 BC.

In an exceptionally short but successful period of military expansion Cyrus II, who held the royal title of "king of Anshan", an adaptation of the Elamite royal title, built the Persian empire, first conquering the Median empire of Astyages in 550 BC, followed by the conquests of Lydia in 547/46 BC and Babylonia in 539 BC. With Cyrus II's annexation of the countries of eastern Iran and Central Asia, probably in the 530s, and the conquest of Egypt by his son Cambyses II (539–522 BC), the expansion of the Persian empire was concluded. Though Darius I (522–486 BC) undertook an expedition against the Scythians (518/17 BC) and maintained control over the Aegean (490 BC), his main concern was the consolidation of the empire, focusing on the administration of the provinces of the empire, the satrapies, established in the time of Cyrus II.

The Persians were organized in tribes, among them the Pasargadae, Maraphians, and Maspians. Prominent families of the Persian nobility formed the political elite under the Persian kings. As satraps, they represented the king in the lands of the empire, and were responsible for collecting tribute, levying military troops, and executing the political will of the king. The term "Persians" was first used in the royal inscriptions of Darius I to identify an ethnic class of people, while the king

identified himself and the royal family as Achaemenids, descendants of the eponymous founder of the empire, Achaemenes. Though Darius' claim to an Achaemenid lineage might be pure creation in order to legitimize his kingship, the identification of the Persian dynasty as Achaemenids was recognized by Greek and Roman writers. Darius I defined the ethnic term "Persians" further to classify a Persian nobility, who also may have been identified by a common script and language, Old Persian, introduced by Darius I, and by the common worship of Ahura Mazda, the principal god of the Persian kings. The many peoples of the empire were permitted to maintain their distinctive character through their own language, culture, and religion, a latitude by which the Persians aimed to minimize the risk of revolt against their rule in the satrapies. The presence of the satrap, who represented the splendour of the king in the provinces, nevertheless influenced the local elite to adopt and imitate Achaemenid values, which were expressed in architecture as well as in luxury goods such as gold and silverware, jewellery, and Persian-style fabrics and fashion.

The Greeks used the term "Persians" as a general reference to the peoples of the Persian empire, regardless of their ethnic identity. Greek contact with the Persians began as early as the 6th century BC, when the Ionian Greeks under Cyrus II were part of the workforce which built Pasargadae, the first royal city of the Persians, and later Persepolis. In the same century the domestic chicken was introduced to mainland Greece; it was known as the Persian bird (Cratinus, 259; Aristophanes, *Birds*, 485, 707). Achaemenid gold and silver vessels served as models for the "Achaemenid *phialai*" (libation bowls) in the late 6th and early 5th century BC, but Persian influence on Greece increased significantly after the Greek–Persian wars of 490 BC and 480/79 BC, when Greek awareness of the Persians and Persian culture was reflected in literature, art, and architecture. Persian luxury goods became a desired commodity among the Greek elite. Persian garments, imported as well as imitated, were luxury items for wealthy Greeks, and pottery reflecting Persian-shaped vessels was increasingly used. Athenian buildings like the Odeum were built after the Achaemenid model of a hypostyle hall. With the establishment of the Athenian empire in the mid-5th century BC, Athens regularly summoned its allies to Athens to celebrate the Great Panathenaea, during which the latter offered a cow and a panoply, while at Eleusis they were required to present first fruits during the Eleusinia. The procession of the allies can be seen as the Greek adaptation of the tribute or gifts being brought by peoples of the Persian empire, as depicted on reliefs at Persepolis. Intriguingly, during the Panathenaea, the *kanephoroi* ("basket-carriers") carried parasols, a distinctive attribute of the Persian king.

After the collapse of the Persian empire in 331 BC, first Alexander and then the Seleucids adopted many Persian practices, maintaining the satrapal division of the empire, Persian administration, collection of tribute, and the levying of military forces. Adopting Persian dress and royal court ceremony, Alexander even saw himself as the legitimate successor to the Achaemenid throne. In the Hellenistic period the close cultural contact in Asia Minor between the Greek/Lydian community and the local Persians probably led to the Greek assimilation of the cult of Artemis with that of the Persian goddess Anahita, when inscriptions refer to the Greek goddess as "Artemis Anaitis" and "Artemis Persike".

In the Roman period the term "Persians" acquired an extended meaning, generally referring to the people of both the Parthian and the Sassanian empires. European knowledge about the Persians was gradually all but forgotten, except for the names of kings and geographical places, preserved in the books of the Old Testament. Here Cyrus II was perceived as a benign ruler, who allowed the return of the Jewish exiles in Babylon, and who supported the rebuilding of the temple of Jerusalem. Early accounts of ancient Persian ruins were due to individuals travelling through Persia, though their identification was not always possible. Knowledge about the Persians began early in the 19th century with the decipherment of the cuneiform script by Georg Grotefend and Henry Rawlinson and the archaeological excavations of the Persian royal cities of Susa, Pasardagae, and Persepolis.

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PHAESTUS

City in Crete

Phaestus is located in the Mesara plain in south central Crete. The Mesara is the largest fertile plain outside the Greek mainland and has always been a focus for cultivation and settlement. Its edges are defined to the north by the Ida range (Mount Psiloriti) and to the south by the Asterousia ranges, which block access to the southern coast; the plain runs into the Libyan Sea to the west at the bay of Mesara. Phaestus, along with Hagia Triada, is located on a ridge rising some 100 m above the plain and running east–west in the middle of it. Phaestus is set on the eastern summit of this ridge, with a commanding view of the plain below and to the east, while Hagia Triada is located at the west end, overlooking the Ieropotamos river where it runs into the sea.

Occupation of the Phaestus site is attested by deposits of pottery and by scraps of architecture from as early as the late Neolithic period (*c.*4000–3500 BC) and also in the Early Minoan period (*c.*3500–1150 BC). However, the principal architectural remains uncovered by the extensive excavations attest to the grandeur and importance of the site during the ''palatial'' period of Minoan civilization (*c.*2000–1450 BC). As at Mallia and Knossos, Phaestus went through two principal periods of use at this time, the protopalatial (*c.*2000–1700 BC) phase and the neopalatial (*c.*1700–1450 BC) phase, thus around 550 years during which a great deal of continuity of social structure and religious practice is evidenced at the site.

Although second in size to Knossos, Phaestus is the principal site in Crete for the study of the protopalatial period. At Knossos and Mallia, reconstruction work in the neopalatial phase obscures much of the earlier history of the building complexes, but careful excavation by the Italian team at Phaestus since 1900 has revealed much detail about the earlier period. Principal architectural features are a massive western facade of cut ashlar blocks, clearly forming the public face of the building, which fronts on to a west court that is built on three levels. The preservation of the protopalatial court and facade is due to the removal of the facade wall some 8 m to the east and the raising of the central part of the court by at least 1 m during the neopalatial rebuilding phase.

The west court is paved with flagstones and marked by characteristic ''raised walkways'', present at the other palaces and plausibly interpreted as defining processional routes. One branch of these walkways leads to the ''theatral area'', a flight of low steps backed by a wall, interpreted as a place for people to stand or sit while watching or participating in events in the west court. A shrine has been identified in the immediate vicinity. A second branch leads to the protopalatial entrance to the palace, considerably simpler than its neopalatial successor and located further south. A third branch leads by a winding route to the lower west court, where the facade of the palace continues, behind which lie rooms interpreted as workshop and possibly domestic areas.

The principal effect of the neopalatial remodelling of the western area was to create a massive propylon leading off the west court, apparently to serve as a monumental entrance to the palace. This entrance may also have served to limit access to the palace, since exits from it were small. Beyond lie the storage areas and the central court. Both features were present, in slightly differing forms, in both protopalatial and neopalatial periods. The storage areas consist of rooms containing massive pithos storage jars, for storing grain, oil, or wine; caches of Linear A tablets and clay sealings found in this area, principally of the protopalatial phase, have revealed much of the workings of the bureaucracy of the palace. In particular, not only jars but also doors seem to have been sealed, and seals often bore the impression of multiple seals, perhaps an indication of hierarchy in the palace personnel.

The paved central court was colonnaded and furnished with a fine north entrance. The possible functions of the central courts of Minoan palaces remain obscure, with suggestions ranging from a simple place of gathering to the possibility of bull-leaping ceremonies (also given as suggestions for uses of the west court). The court is aligned with the remote Kamares cave in the mountains to the north, where excavation revealed characteristic sacred cave deposits, including examples of the old palace pottery style now called ''Kamares'' ware. North of the court is a series of rooms forming the characteristic ''Minoan hall complex'' of the neopalatial period, with two halls and anterooms, light wells, corridors, and a lustral basin. This area seems to form an equivalent to the ''domestic quarter'' at Knossos. Other sections of the palace have been identified with workshop, ceremonial, public, or private space.

Although the size of Phaestus is not great, it is spectacular by prehistoric standards, and not all of the area has been excavated. The palace buildings represent a flourishing and highly complex centre, whose relationship to its hinterland is still far from clear. The storage faculties seem impressive, but probably do not represent the whole output of the Mesara, so it seems likely that only partial concentration of harvest at the centre was occurring. By the neopalatial period a number of lesser centres (''villas'') had sprung up in the countryside and seem similarly concerned with the organization of agricultural production. But in the protopalatial period, archaeology has revealed little infrastructure that can be associated with the palaces in the countryside. It seems likely that the symbolic and ideological aspects of the palaces were always primary and that the coming into being and flourishing of these places depended on the importance attached to such aspects by most, if not all, of the population. The difficult question of what portion of the population might have lived in a town around the palace has not been resolved for either phase.

Phaestus suffered, with much of Crete, at the end of the neopalatial period, as a result of either natural catastrophe or human intervention, or both. Some LMIII occupation is attested, and it is assumed that the site is signified by the Linear B *pa-i-to*, but in this last period of the Bronze Age the focus of occupation was the west end of the ridge, at the site of Hagia Triada. In the neopalatial period a large Minoan villa was constructed here, with characteristic features such as a ''Minoan hall complex'' and storage areas. Neopalatial finds from Hagia Triada are in many ways more impressive than those from Phaestus itself in this period, including a Linear A archive associated with storage areas, frescos, copper ingots, and objects regarded as high art. In the later Bronze Age a large building, interpreted by some as a Mycenaean megaron, was built at the site. This has been taken as an indication of Mycenaean control of the area at this time; it certainly points to new occupation in the area with a complex organization. The surrounding area includes a large number of houses and a large open space with a complex of storage places or perhaps of shops.

Evidence for post-Bronze Age occupation at Phaestus has come to light in various excavations on the ridge. At the palace site a temple, probably dedicated to Rhea, has been investigated at the southwest edge of the excavations. This was founded in the 8th century and used throughout the Classical and Hellenistic periods. Other geometric remains including houses were located west and southwest of the palace, and elsewhere on the ridge. Occupation certainly continued through the Archaic and Classical periods, although historical and archaeological evidence is rare. The Hellenistic period represents something of a revival. Phaestus was one of the city-states of Crete, and both the palace site and other sites on the ridge, including Hagia Triada, have revealed substantial remains of settlement. Apart from the temple of Rhea, there was also a temple to Apollo or

Asclepius, a city wall, and paved roads. Phaestus remained independent, though subject to Gortyn, until the mid-2nd century BC, when it was sacked by Gortyn and not reoccupied.

Roman remains are few, but in Byzantine and Venetian times churches and a monastery were founded on the ridge, including the church of Hagios Georgios Galatas with 14th-century frescos, and tombs have been located in some excavations. The site of Hagia Triada was occupied by an Ottoman Turkish village until 1897.

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See also **Minoans**

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PHIDIAS

Athenian artist of the 5th century BC

Phidias, son of Charmides, was Athens' most prominent artist in the period between the start of the radical democracy and the beginning of the Peloponnesian War (*c.*462–431 BC). He was probably born around 490 BC. He was reputedly a pupil of Hegias and Hageladas of Argos (who also were supposed to be the teachers of Myron and Polyclitus), who introduced him to the new technique of bronze casting.

His earliest works can be dated only approximatively: they are a group of bronze statues in the sanctuary of Delphi, showing the victorious Athenian general Miltiades surrounded by gods and heroes (Pausanias, 10. 10. 1); an over-lifesize statue of *Athena Areia* (with a height of more than 3 m), whose clothes were of gold and flesh of marble, for a newly built temple at Plataea (Pausanias, 9. 4. 1; Plutarch, *Aristides*, 20; probably recognizable in the so-called Athena "Medici" type); and a giant bronze statue (about 9 m) of *Athena Promachos* ("front-fighter") on the Acropolis of Athens (Pausanias, 1. 28. 2). All these monuments were commissioned by the Athenian state as memorials of the victories at Marathon (490 BC), Plataea, and Salamis (480/79 BC); today it is widely believed that they were constructed around 460 BC, when because of its foreign policy situation (tensions with Sparta and Thebes) Athens was very much inclined to point to its leading role in the Persian Wars.

These works must already have won Phidias great fame by the middle of the 5th century BC; he apparently had connections with influential people in the city (above all Pericles) who decided what was to be buik at Athens and by which artist. So when in 448 BC the city decided to rebuild the Parthenon with a huge statue of Athena Parthenos, Phidias was again commissioned to create this statue. More controversial is the question of how big a role Phidias really played in the building of the Parthenon itself and how many of its pediments, metopes, and friezes were really made by him: Plutarch (*Pericles*, 13) calls him "overseer" (*episkopos*) and credits him with a near-omnipotent role as leader and organizer; this, however, does not fit very well with our knowledge of democratic Athens, where many people had a surprisingly large say even in matters of art. On the other hand, the coherent conception of the building's exterior sculpture and its many connections with Athena Parthenos indicate that Phidias must have been at least a very influential supplier of ideas.

Phidias' fame rested chiefly on his *Athena Parthenos* and his *Olympian Zeus* (see below). Both were made of gold and ivory laid over a wooden core and additionally decorated with other precious materials. The *Athena* was 12 m high and her garments consisted of more than a ton of gold (consuming a sizeable part of the state treasury of Athens); her extended right hand held a Nike (goddess of victory), her left a spear and a shield embellished on the outside with an Amazonomachy, on the inside with a Gigantomachy; furthermore, a snake (the symbol of the mythical Athenian king Erechtheus) was curled up inside the shield. Lapiths and Centaurs adorned Athena's sandals, and her pedestal displayed the birth of Pandora in relief. At the centre of her aegis a Gorgon was displayed, and the triple crest of her helmet sported a sphinx and two Pegasi, its cheek-pieces griffins. The statue was finished in 438 BC, the exterior sculpture of the Parthenon in 432 BC. During this time Phidias had several other, minor public commissions: the statue of *Athena Lemnia*, also on the Acropolis; the so-called *Mattei Amazon* for a contest in Ephesus; and a cult statue of *Aphrodite Ourania* ("the heavenly") for Elis near Olympia.

Plutarch (*Pericles*, 31f.) reports that Pericles' enemies prosecuted Phidias for allegedly embezzling ivory from *Athena Parthenos* and for blasphemy (because he allegedly included his and Pericles' portrait on the *Parthenos*' shield); but the evidence for this trial (about 434 BC) is very contradictory, and Phidias' death in prison is almost surely a later fiction, for his workshop at Olympia, which has been found (with tools, terracotta moulds, and even a cup bearing his name), must be dated to the 430s BC. The *Olympian Zeus* (Strabo, 8. 353f.; Pausanias, 5. 10. 2ff.) was even bigger than the *Parthenos*: enthroned, he held a Nike in his right hand and a sceptre in his left; the throne itself was richly embellished with Graces, Seasons, Nikai, Sphinxes, the slaughter of the children of the Theban queen Niobe, and an Amazonomachy; Phidias' brother or nephew Panaenus decorated the screens between the legs of the statue with paintings of *Hellas and Salamis*, some of the *Labours of Heracles*, *Hippodamia and Sterope*, and *Achilles and Penthesilea*. Another Amazonomachy could be seen on Zeus' footstool, and the statue's pedestal showed the birth of Aphrodite. At some point in the 420s BC Phidias disappears from our sources; according to some, he was killed by the people of Elis, but there is no real evidence for this.

Reliable sources for Phidias' life are few; brief mentions by Aristophanes (*Peace*, 605–18) and Plato (*Meno*, 91d; *Protagoras*, 311c) provide the only contemporary written testimony; more informative, but not always reliable, is Plutarch's *Life of Pericles* (late 1st century AD). In his *Olympic Discourse of* AD 97 Dio Chrysostom stages an imaginary defence of the *Olympian Zeus* by Phidias himself against those who doubt that the majesty of a god can be rendered in human form; and in the 3rd century AD the Neoplatonist philosopher Plotinus pays an even more handsome tribute to this statue, which became one of the seven

wonders of the world: he says (*Ennead*, 5. 8. 1) that Phidias did not make it from any earthly model, but that his imagination grasped what Zeus would look like if he wanted to make himself visible.

We do not really know what happened to Phidias' works in later antiquity. By the end of the 5th century AD most of them had probably already been destroyed; what at this time still survived of valuable artwork was in most cases transferred either to Rome or to Constantinople (the Neoplatonist Marinus (*Vita Procli*, 30) records that *Athena Parthenos* was taken out of the Parthenon during the lifetime of his teacher Proclus, but says nothing about the further fate of the statue). Probably the last mention of a work of Phidias may be found in the account of Niketas Choniates (*c.*1155–1217) that a statue of Athena (possibly the Promachos from the Acropolis) was destroyed by a raging mob who believed that her outstretched hand had lured foreign enemies into the city of Constantinople.

BALBINA BÄBLER

See also **Ivory; Sculpture**

Biography

Born *c.*490 BC the son of Charmides, Phidias was the most famous artist of 5th-century Athens. He was said to have been a pupil of Hegias and Hageladas of Argos. His fame rested largely on his statues of Athena Promachos for the Parthenon and of Zeus for Olympia. The extent of his role as overseer of the Parthenon as a whole is uncertain. He died probably in the 420s BC.

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PHILIP II 383/82–336 BC

King of Macedonia

The famous historian Theopompus said of Philip II that "Europe had never produced such a man at all as Philip, the son of Amyntas." Yet the same sentence can also be translated "Europe had never endured such a man at all as Philip, the son of Amyntas." The enigma reflects the mixed views of both Theopompus and other Greeks of the 4th century BC. Moreover, the conundrum persists today. Philip's dubious reputation stems from the hostility shown towards him by many of the ancient writers who treated his life and deeds. His mortal enemy was the eloquent Demosthenes, whose portrait of him entirely in black has had the greatest impact on the historical imagination from antiquity to the present.

Philip was born in either 383 or 382 BC to Amyntas, king of Macedonia, and Eurydice, a princess of Lyncus. The northern connection proved vastly important to him, for the Illyrians in the northwest, the Paeonians in the north, and the Thracians in the northeast posed continual threats to Macedonia. The Greeks too exploited Macedonian weakness whenever possible. Philip spent three of his early years as a hostage in Thebes during the hegemony. There he learned much from Epaminondas and Pelopidas about Greek life. In 359 BC he returned home, and at the age of 24 ascended the throne.

At the outset Philip defeated the invading Paeonians and Illyrians, and coped with Athens, which supported the pretensions of Argaeus to the throne. This was the first of many Athenian acts of aggression against Philip. Success freed him for intervention in Thessaly at the request of the noble Aleuadae family. This friendly connection served him well by protecting his southern border and later allowing him direct entry into the mainstream of Greek affairs. Hence, by 358 BC Philip had confronted all his enemies by a combination of might and diplomacy.

Philip next built a new, mobile, formidable army, and in 357 BC he used it to conquer Amphipolis, which secured his eastern border and gave him command of the riverine commerce of the Strymon valley. Declaration of war by Athens failed to stop his move into the rich mining region of Mount Pangaeus. In 356 BC he seized Crenides, also rich in gold and silver the income from which provided him with more than 1,000 talents a year. Now freed from economic worries, in 356 BC he suppressed discontent among the Thracians, Paeonians, and Illyrians, and obstructed Athenian ambitions in the northern Aegean. With his conquest of Pydna, Potidaea, Anthmus, and Methone by 354 BC he gained control of the entire Macedonian coast. Victories in the north and peace in the south gave Philip a secure kingdom, which he further consolidated by winning the complete allegiance of the nobility and moving Macedonians from their mountain fastnesses to newly established cities in the plain. Urban life thereby flourished, and many of these cities survive today in altered form.

Philip entered the main current of Greek affairs by invitation, not by design. In 355 BC Greece had become embroiled in the Sacred War, sparked when the Phocians illegally seized the sanctuary of Apollo at Delphi, whereupon they systematically plundered it. The members of the Amphictyonic Confederacy, which included Thessaly and Thebes, had vainly striven to dislodge the temple robbers. In 354 BC the Phocian general Onomarchus attempted to drive Thessaly from the war by supporting the rebellious tyrants of Pherae. The Thessalians appealed to Philip for help, and he proved so successful that Pherae entreated Onomarchus for relief. After hard fighting, Onomarchus drove Philip from Thessaly, but in the following year Philip defeated Onomarchus at the Battle of the Crocus Plain. Philip added a symbolic meaning to his victory, for he announced that he came to Greece as a champion of Apollo,

whose sanctuary he intended to liberate. He came to Greece not as a foreign invader but as the pious defender of Greek religion.

Philip used his victory in Thessaly wisely by bringing it and its federal government completely over to his side. He systematically conquered the strategically vital harbour of Pagasae, next won Pherae, and reduced the rest of Thessaly to his will, the culmination of which was his election as archon of the Thessalian Confederacy. His new position in Thessaly permanently altered the face of Greek politics. He was now the most powerful man in Greece, and no single state could stand against him.

Alarmed by Philip's success in Thessaly, Athens strengthened its position in Thrace. In 352, BC it gained the Chersonese from Cersebleptes. After a campaign in the northwest that took him nearly to the Adriatic, Philip in 351 BC made sweeping gains in Thrace that threatened Athenian designs more closely. In the following spring Philip attacked Olynthus to remove the last major impediment in his political road. In 352 BC Olynthus had made peace with Athens, a breach of its earlier treaty with Philip. In 349 BC Philip declared war, whereupon Olynthus concluded an alliance with Athens. Yet an Athenian relief force proved too small to accomplish anything. Forgoing a direct attack on Olynthus, Philip instead reduced 32 surrounding allied cities, most of them scattered throughout the region. In 348 BC he conquered Torone and Mecyberna, the port of Olynthus, thus closing the trap. Athenian help availed nothing, and in 346 BC Philip took and razed Olynthus. Athens had nonetheless openly declared war on Philip.

The years 347–346 BC proved fruitful for Philip. At the request of Thessaly and Thebes he marched into Phocis to end the Sacred War. His presence intimidated Athens into making peace. In 346 BC Philip and his allies and Athens with its naval allies concluded the Peace of Philocrates. All other states were excluded. While the negotiations were still pending, Philip defeated Cersebleptes, thus giving him control of the Chersonese. He now stood on the western side of the Hellespont, where he anchored the eastern flank of his empire both militarily and diplomatically.

After the peace Philip campaigned in the north from 344 to 340 BC, during which he subdued the Illyrians as far north as Albania, Epirus, and Thrace, where he established Philippopolis. These expeditions took Macedonian power north of the Great Balkan range. In the northeast he attacked Perinthus and Byzantium in 340 BC, but Athenian and Persian aid foiled his plans. In 339 BC Philip decided that Athens' time had come. Entering central Greece through the Dhema pass, he outflanked Thermopylae and reached Elatea, just three days' march from Attica. Demosthenes rallied first Athens and then Thebes to war. Throughout the year they parried Philip's thrusts, but in 338 BC he reached the small plain of Chaeronea unopposed. The ensuing battle was marked by hard fighting on both sides, but the Macedonians cut through the stubborn front of the Thebans and smashed the Athenians. Even though Philip had not vanquished all of Greece, he was nevertheless *hegemon* (commander) of it.

Military victory was crowned with political consolidation. In 337 BC Philip summoned the Greeks to a congress at Corinth. There he established the so-called League of Corinth that forged a general alliance of Greeks and Macedonians. Each member state received protection from external attack and freedom from outside interference in local affairs. Delegates of the cities met in common assembly to formulate policy, and Philip was elected *hegemon* to implement its resolutions in peace and lead it in war. One of his first acts was to summon the Greeks to a great crusade against Persia under his leadership. Contingents were assigned and muster ordered for the following spring.

His work in Corinth done, the lord of Greece returned to Macedonia to celebrate his seventh marriage and to prepare for the Persian expedition. His last wedding proved to be his last act. Philip entered the theatre at Aegae at the head of the wedding procession only to be struck down by an assassin. The party who instigated the deed was never discovered. All tracks had been too carefully covered. Alexander, soon to be called the Great, quickly and effortlessly ascended the throne. Philip was buried with great pomp, but his achievements did not die with him.

Philip's legacy reached from his day to this. He inspired the Macedonians to resist Rome, and even Roman victory did not erase his memory. As late as the 19th century his fame remained alive in Macedonian legends, and numerous myths perpetuated the memory of his famous kingdom. Folklore also attributed many of the ruins of antiquity to him. During the Greek War of Independence he served as an inspiration but in a mixed fashion. Although some Greeks compared him to various Turkish leaders, most saw him as a champion against the barbarians. Since World War II the communists and their successors have tried to establish a Slavic state of Macedonia, against which the Greeks have reasonably objected. In the midst of this controversy Philip returned to uphold the Greek cause. In 1978 Greek archaeologists discovered at Vergina a royal tomb that was almost certainly Philip's. Whosesoever it was, it is purely Greek, dating from the late 4th century BC, incontestable proof of Philip's success in cultivating Hellenism in northern Greece. That heritage is as strong today as it was at his death.

JOHN BUCKLER

See also **Macedonia**

Biography

Born in 383 or 382 BC the son of Amyntas and Eurydice, Philip spent three early years as a hostage at Thebes where he learnt much about Greece from Epaminondas and Pelopidas. Returning home in 359 he became king of Macedon at the age of 24. By a series of campaigns he established Macedonian supremacy and at Chaeronea in 338 he defeated an alliance of Athenians and Thebans. He was assassinated at Aegae in 336 BC.

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PHILIP V 238–179 BC

King of Macedonia

The young prince Philip was left fatherless as a boy of 9 in 229 BC upon the death of his father Demetrius II. He was placed in the care of a regent, a royal relative named Antigonus Doson, and was sent to Aratus of Sicyon, a Greek statesman and head of the Achaean League, in order to learn about Greek affairs. The effects of this education on Philip's later behaviour are impossible to calculate. He acceded to the throne in his own right in 221 BC, and quickly became embroiled in the Social War in which he and the Hellenic League faced the Aetolians, Sparta, and their allies. This war (217–200 BC) marked his transition into a mature king.

Philip was a brilliant military commander whose flair got him further than the odds against him should have allowed (although he experienced some spectacular setbacks), but he was reckless and foolhardy. The destruction of the kingdom of Macedonia and the eventual domination of northern Greece by Rome must in large measure be laid at Philip's door. He became alienated from Aratus (and his possible moderating influence) when he fell under the influence of Demetrius of Pharos, an Illyrian dynast whom Rome had placed in control of the Adriatic island of Pharos (Hvar in modern Croatia) and then displaced. Demetrius therefore harboured a deep-seated grievance against Rome, and incited Philip in the same direction. The final break came with Aratus' death in 213 BC, after Philip had seduced Aratus' daughter-in-law. Aratus died, claiming that Philip had poisoned him.

Philip irritated Rome by interfering in Illyria by land and sea, and by staging campaigns in Greece against Roman allies and on behalf of its enemies. Rome's declaration of war on Philip was probably inevitable. Three Macedonian wars against Rome and its allies ensued. Philip's military successes, continued meddling in the affairs of other Greek states, and alliances with various other Hellenistic monarchs increased Rome's suspicions of his political motives and led it to regard him as a dangerous threat. Paradoxically, the Romans claimed to be protectors of Greek freedom against Philip. The appointment of the great Roman general Flamininus to the command in the Second Macedonian War led to Philip's decisive defeat at the Battle of Cynoscephalae (in Thessaly) in 197 BC.

Philip was allowed to remain king, but a fine of 1,000 talents was levied on Macedonia, and his elder son Demetrius was taken to Rome as a hostage. Philip was confined to his kingdom and concentrated on rebuilding his country, with considerable success. He needed to be seen as an active ally of Rome in its further campaigns in Greece while in reality he bridled at its treatment. He continued to pursue an active foreign policy in Thrace, which only fuelled Rome's continued suspicions against him. After Demetrius had returned from Rome, his dubious actions and demeanour led his father to fear him as a Roman-inspired pretender to the throne. Perhaps encouraged by his younger son Perseus (who stood to benefit), Philip had Demetrius killed, thereby clearing the way for the accession of Perseus to the Macedonian throne.

Philip set forth on a great tour of his kingdom, but fell seriously ill in Amphipolis in 179 BC and died soon after. Perseus inherited a kingdom that was far stronger than it had been at the beginning of Philip's reign. The irony of Philip's reconstruction of Macedonian manpower and its economy lies in the fact that Perseus thought that the country was strong enough to face Rome a third time – this time with fatal results.

It is not easy to assess Philip V's place in the Hellenic world. He is one of the last larger-than-life figures to emerge from the Hellenistic monarchies, but, his dynamic personality aside, this is due to the abundant ancient evidence about his life and career. Given his unique place in history between Greece and Rome, he was an object of fascination to Greek as well as to Roman historians. The flaws in Philip's character are clear and his military genius is undoubted, but hindsight shows that this dangerous combination ultimately opened northern Greece to Roman rule. The final assessment of F.W. Walbank still cannot be bettered:

> But perhaps the greatest irony of all lies in this, that the king of Macedon, who was renowned above all for his energy, speed and enterprise, who opened his reign as the "darling of Greece" ... should claim his place in world history, not for any of these things which he initiated, but solely as the unwitting instrument that enabled the culture of Greece to spread along the paths of the legions to Rome, and so to the western civilisation that grew up after her.
>
> (Walbank, 1940, p. 275)

E.E. RICE

See also **Antigonids**

Biography

Born in 238 BC the son of Demetrius II, Philip was adopted (after his father's death in 229) by Antigonus Doson and sent to Aratus in Sicyon to be trained. He succeeded Antigonus as king of Macedonia in 221 BC. He was a brilliant commander and restored the fortunes of his kingdom, but he antagonized Rome. Fearing the treason of his elder son Demetrius, Philip had him killed. Philip died at Amphipolis in 179 BC.

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PHILO

Jewish philosopher of the 1st century AD

Philo, born in the latter half of the 1st century BC, belonged to a wealthy priestly family in the large Jewish community in

Alexandria. Of the course of his life we know nothing save that in AD 39/40, as an old man, he was part of an embassy to Rome to plead the religious rights of the Jews with the emperor Caligula. He was the author of a large number of predominantly philosophical works, many of them taking the form of a commentary on passages from the Pentateuch in the Alexandrian Greek translation known as the Septuagint, in which he sought to reconcile God's revelation to Moses, in which he deeply believed, with the Platonic philosophy of his day (nowadays known as Middle Platonism). Because he believed in the inspired nature of the Septuagint translation, he had no need for recourse to the original Hebrew text, and there is no real evidence of his knowledge of the Hebrew language. His Hellenized Judaism was probably typical of many Greek-speaking Jews of his day, but stands at a distance from the contemporary emerging Rabbinic tradition, in which form Judaism was transmitted to the Middle Ages and beyond to the present day. There are consequently no explicit traces of Philonic influence on subsequent Jewish tradition, and no Jew mentions him by name until Azariah de Rossi in the 16 th century. His writings were treasured and preserved by Christians, especially of the Alexandrian tradition.

As with the Stoics in their reconciliation between philosophy and the Homeric epics, Philo's method of reconciliation was allegorical exegesis. His Platonic reading of the divine revelation to Moses in the Pentateuch yields a metaphysical view of God and the cosmos, and of the place of the human within it, that is in many respects typical of the Middle Platonism of his day. His God is one and transcendent and consequently utterly beyond any human comprehension: Philo has a good claim to the title of "the father of negative theology". This one transcendent God is manifest in the universe through his "powers" (*dynameis*), in which his kingly rule and beneficent providence are manifest. The highest of these powers (and sometimes apparently distinct from them) is the Word, or *Logos*, which has some of the characteristics of the Stoic *logos*, some of the Platonic *nous* (or intellect), but is uniquely regarded by Philo (responding to the language of the scriptures) as the utterance of God, as the one who speaks, pre-eminently to Moses. Here, and in other ways, we find in Philo a sense of God's personhood, lacking in his Middle Platonic contemporaries. In his understanding of creation, the account of Genesis is read in the light of Plato's *Timaeus*, and the cosmos, informed by the world-soul, is modelled on the soul-body unity of the human person. In his ethics Philo for the most part follows the Stoics.

Because so much of Philo's work survives, compared with contemporary Middle Platonists, he is an important witness to the philosophical matrix from which Neoplatonism developed, even though his own influence on the Neoplatonists themselves may not be very great. His Platonized Hebraism, however, paved the way for Christian Platonism; it is for his influence on Christian thinkers that he is important, beginning with Clement of Alexandria and Origen in Alexandria in the 2nd and 3rd centuries AD, and manifest in the 4th century in exegetes such as Didymus the Blind, also an Alexandrian, and the Cappadocian Fathers, especially Gregory of Nyssa. In his *Life of Moses* Philo provided a two-part interpretation of the biblical account of Moses' life: the first part tells the biblical story of Moses, and the second part, through an allegorical account of events from that life, provides an account of how the mind relates to God and the world. Gregory of Nyssa's own *Life of Moses* is clearly inspired by Philo's, and presents Moses' life in the second part as an allegory of the Christian life, understood as the ascent of the soul to God. Through Gregory's version, Philo's *Life of Moses* became one of the models for the *Lives* of the saints, perhaps the most popular form of literature in the Byzantine world. Philo's fundamentally contemplative ideal of the philosophical life had a profound influence on Christian monasticism (already with the Cappadocian Fathers, the "philosophical life" is a synonym for monasticism), and his work *On the Contemplative Life*, in which he gives an account of the life of a Jewish community called the *therapeutae* ("servants" or "worshippers" [of God]), was taken by Eusebius and many after him to be an account of an early Christian monastic community.

ANDREW LOUTH

See also **Jews**

Biography

Born in Alexandria in the second half of the 1st century BC, Philo was a leading exponent of Jewish culture. He accompanied an embassy to Rome in AD 39/40 to the emperor Caligula. He wrote many philosophical works in the form of commentaries on scripture. His writings paved the way for Christian Platonism and were more influential on subsequent Christian thought than Jewish.

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PHILODEMUS *c.*110–40 BC

Philosopher and poet

Philodemus of Gadara studied philosophy in Athens, choosing Epicureanism from the several schools there as the doctrine he would follow for the rest of his life. After Athens, and perhaps after a stay in Alexandria, he lived in and around the bay of Naples, where Greeks had settled earlier but whose pleasant surroundings were attracting Romans; many of them were eager to be instructed in the ways of Epicureanism by Siro and Philodemus, both of whom made the acquaintance of

Virgil and his circle of friends. Philodemus seems also to have attracted L. Calpurnius Piso Caesoninus, the father-in-law of Julius Caesar, as his patron. When Mount Vesuvius erupted in AD 79, covering Pompeii and nearby towns, the impressive villa on the shore of Herculaneum was found upon excavation in the 18th century to contain the charred papyrus remains of a library comprising, for the most part, Greek Epicurean texts, many by Philodemus. It is usually assumed that Piso was the villa's original owner. Since Philodemus refers in one of his works to his own house as "a humble cottage", he would not have lived in the villa himself, as is sometimes thought.

In addition to the papyrus remains found at Herculaneum, we also have about 35 Greek epigrams written by Philodemus which were preserved in the manuscripts containing the *Greek Anthology*. Although Epicurus discouraged his followers from writing poetry, Lucretius, Philodemus, and some others found ways to justify their poetic activities. What makes Philodemus particularly interesting is that among his prose treatises are several concerned with the composition of poetry and music, which prove to be among the most important theoretical writings on these subjects from Greek antiquity. In his *On Poems* Philodemus argues that poetry is to be judged not by its didactic or instructional value but rather by criteria that are largely but not entirely aesthetic. Poetry, that is, should play with ideas; but if one truly desires to be instructed in the ways of philosophy, there is no substitute for lectures and prose argument. Other writings by Philodemus on literary subjects are *On Music*, *On the Good King According to Homer*, and a *Rhetoric*. In these, as in most of his prose, Philodemus typically reviews and criticizes the various views proposed by others before offering his own views. This methodology is welcome in that it provides information otherwise unknown about obscure theorists of the Hellenistic period. Unfortunately, however, the fragmentary nature of the Herculaneum papyri is often such that isolated sentences, even if largely comprehensible in themselves, cannot be assigned to their proper authors.

Much of Philodemus' writing is ethical in nature. From one large work, *On Vices and Virtues*, and substantial fragments from several other books are extant: *On Flattery* (book 7), *On Household Management* (*Oeconomicus*, book 9), and *On Arrogance* (book 10). Other works preserved to varying degrees are *On Frankness*, *On Anger*, *On Death*, and an untitled ethical work now called, after its first editor, the *Comparetti Ethics*. Philodemus' writings thus nicely complement those of Lucretius, who concentrated almost exclusively in his Epicurean poem on the nature of matter and the causes of natural phenomena, with almost no attention paid to ethical concerns.

Only on the most important subject of death do Philodemus and Lucretius overlap to any appreciable extent, for Epicurus was convinced that only by learning to live without fear of death could mankind achieve and maintain the state of *ataraxia* (lack of disturbance) necessary for happiness. The Epicurean view, denying that there is any life after death or any reincarnation, or that the gods have any concern for our welfare (see Philodemus' *On the Gods*), was used to argue that we should be happy with what little is required to satisfy the basic needs of the body. Philodemus' personal and gentle treatment contrasts noticeably with Lucretius' harsh way of dealing with this subject.

Other ethical works by Philodemus are *On Piety*, *On Frankness*, and *On Anger*. Frankness, or freedom of speech, is not to be taken too literally: Philodemus is here concerned with the appropriate language that one should use in various circumstances, which often calls for caution rather than complete truth. In *On Anger* Philodemus argues, against the Stoic position, that there are indeed times when a display of anger is appropriate.

Philodemus also wrote a work on scientific method, *On Signs*, and some histories of philosophy. It seems, however, that most, if not all, copies of his prose were destroyed in AD 79, although Diogenes Laertius (3rd century AD) may have organized his biographies of Greek philosophers (which end with a lengthy, favourable life of Epicurus) along the lines he found in Philodemus' history of philosophy. Philodemus' poetry, however, which had a much wider audience than his prose, survived on its own to influence contemporary Roman poets (Virgil, Catullus, Horace) and their immediate successors (Ovid, Tibullus, Propertius). Selected epigrams were incorporated by Philip of Thessalonica into his *Garland* of epigrams, which in turn found its way into the *Greek Anthology*, where Philodemus was read and admired from the Renaissance until the present day.

DAVID SIDER

Biography

Born at Gadara in Syria *c.*110 BC, Philodemus studied philosophy in Athens and became a follower of Epicureanism. Moving to Italy, he settled near Naples. Through L. Calpurnius Piso Caesoninus he was acquainted with many students of Greek literature including Horace and Virgil. Some 35 poems of his survive in the *Greek Anthology*. Some of his prose writings survive in charred papyri rescued from Piso's villa in Herculaneum. He died *c.*40 BC.

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PHILOPOEMEN *c.*252–182 BC

Achaean statesman

Philopoemen, son of Craugis of Megalopolis in the Peloponnese, grew up against the background of the political activities of the Achaean League (a federation of Greek cities in the Peloponnese) under its most famous leader Aratus of Sicyon. He became the pupil of Demophanes and Ecdelus, the liberators of Megalopolis from the tyrant who ruled the city in the mid-3rd century BC. Since Demophanes and Ecdelus had been pupils of the famous philosopher Arcesilaus of Pitane, head of the Academy in Athens, theories have been put forward about their philosophical influence upon the young Philopoemen. It

can at least be said that they were staunch opponents of tyrannical government wherever they found it, and Philopoemen's predilection for federal government stayed with him throughout his life.

Philopoemen espoused the policies of the Achaean League, especially its strong anti-Spartan bias. He fought with the league against Sparta at the Battle of Sellasia in 221 BC, playing a prominent role that was lavishly praised by the historian Polybius (see below), and spent the next 11 years in Crete apparently furthering Macedonian interests there. His return to the Peloponnese coincided with the power vacuum in league politics left by the death of Aratus in 213 BC. He began holding league offices in 210 BC, and was elected its general for the first time in 208 BC.

Philopoemen finally helped to defeat the Spartan usurper Nabis, and forcibly united Sparta to the Achaean League in 192 BC, and he fought for its continued membership despite attempts to detach it by rival factions supported by Rome. His harsh treatment of Sparta alienated even some Achaean supporters and led to Spartan complaints in the Roman Senate. Philopoemen fell out of favour with Rome when he and his supporters maintained that various suggested solutions to Peloponnesian problems were none of Rome's concern but internal league affairs. He furthered his beliefs through league policies in the face of growing Roman involvement in the Peloponnese, although his intransigence caused a rift in the league. The political situation was unresolved when Philopoemen was captured in battle in Messenia in 183/82 BC and he died in prison, perhaps poisoned by his captors; poison was, of course, alleged by his political heirs.

Before his dramatic public funeral, Philopoemen's ashes were borne in an emotional procession back to Megalopolis by the young Polybius (later the historian), whose father Lycortas had been a friend and close political ally of Philopoemen (Lycortas succeeded Philopoemen as general of the league and continued to carry out his policies vigorously). In his later *Histories* Polybius, understandably profoundly affected by these earlier events, depicted Philopoemen as a great folk hero of the Achaean League and a great Greek patriot standing firm against the threat of Rome. Because the writings of Polybius are our best historical source for this period, his picture of Philopoemen has coloured later appreciation of him. Most modern scholarship would now argue that Philopoemen's vision was parochial and his policies blinkered by his opposition to Sparta and Rome. With the benefit of hindsight it is clear that the Achaean League could not in the end resist the power of Rome, and Philopoemen's activities led to greater Roman interference in Greek affairs and to the ultimate defeat of the Achaean League in 146 BC.

In his *Life of Philopoemen* Plutarch (1. 4) says that a certain Roman called Philopoemen "the last of the Greeks". Plutarch himself interprets this to mean that "Greece produced no great man after him, nor one worthy of her" (Loeb translation), but this is clearly a banal observation that is manifestly untrue. The explanation of this enigmatic statement has been widely debated by modern scholars. The most plausible interpretation is that Philopoemen was the last Greek in this turbulent age to achieve local political independence – albeit temporary – for his state. In this case it was the Greek Achaean League against the dominant power of Rome. Like Aratus before him, who had achieved similar freedoms, and because no later Greek was to have equal success in this regard, Philopoemen was thus worthy of extravagant praise and the accolade "the last of the Greeks" (see Errington, 1969, pp. 216–27).

E.E. RICE

Biography

Born *c.*252 BC the son of Craugis of Megalopolis, Philopoemen was a pupil of Demophanes and Ecdelus. He fought for the Achaean League against Sparta at the Battle of Sellasia (221 BC) and then served 11 years in Crete. Returning to the Peloponnese on the death of Aratus, he became general of the league in 208. In 192 he brought Sparta into the league but lost favour with Rome. Captured by Messenians, he died in prison in 182 BC.

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PHILOSOPHY

Ancient Greeks were the first to practise philosophy – that is, they did not just provide world views or narratives, but arguments and reasons. Greeks were highly competitive and fond of adversarial, critical debate. To do this effectively, the philosophers abstracted and analysed, which led them to distinguish specialized areas of inquiry or method. They considered nothing exempt from scrutiny. Philosophy was universal in scope, inclusive of politics, physics, astronomy, cosmology, mathematics, ethics, psychology, religion, and literature. On the whole, epistemology (how and what we know) was closely connected with metaphysics (what are the nature and causes of things), while ethics (literally habits and conduct) was an extension of psychology (theory about life).

The philosophers were small groups of dedicated individuals, usually conscious of their difference from ordinary citizens. The Pythagoreans first organized a philosophical society, which distinguished between occasional followers and more permanent members, and had its own rules of conduct. Plato established his Academy (387 BC) with the benefit of the Pythagorean example, and made it an autonomous fellowship for advanced universal study. In the Roman empire philosophy schools were centres of higher learning, passing this heritage to Europe and Islam. Thus, the Greek philosophical methods and practices became international and intrinsic to university education.

Greek philosophy is summarized here in the following periods: early philosophers (Presocratics, Sophists, and Socrates); Plato and Aristotle; the schools (Sceptics, Epicureans, Stoics, Lyceum, Academy); break, new trends, and state recognition (Middle Platonists, Aristotelians, Sceptics, Neopythagoreans, Plotinus); Neoplatonists and the end of the independent schools; Byzantines; and post-Byzantine and modern Greek philosophers.

Early Philosophers

The first philosophers (6th–5th century BC) abstracted for the purpose of understanding, provided varied accounts of their ideas, and tested their conclusions and common sense by taking them to logical extremes (e.g. paradox-making). They were disparate individuals or small circles of friends known by their home town or leader. Their generic labels, however, serve an ulterior bias. Aristotle called them ''physicists'', because he wanted to show that they were limited to studying only one of his four causes, the material. Moderns call them ''Presocratics''. Yet, all were interested in ethics, too, and several were Socrates' contemporaries. Moreover, Socrates' reputation as a philosopher is owed completely to Plato's genius for philosophical writing and foresight in establishing a self-perpetuating school.

Greek philosophy until Plato is very fragmentary and doxographical. Some (e.g. Socrates, Pythagoras) preferred not to write, and the rest left records that did not survive intact. Our two main sources are Aristotle and the Neoplatonist Simplicius.

The Milesians (flourished 6th century BC) proposed parsimony. The world as one experiences it is due to one principle (*arche*) taking many shapes and forms. For Thales this principle was multiphase water, for Anaximander infinitude, and for Anaximenes diffuse air. The Pythagoreans (6th–4th century BC) asserted that pure numbers are the permanent principles of physical things. They also arrived at the peculiar doctrine of the transmigration of psyche, not just from religious belief but from logical conclusion: the principle of life, psyche, cannot not-live.

Heraclitus (late 6th century), the ''riddler'', alluded to the interrelatedness of things and their constant change by employing paradoxical (''everything is and is not'') or obscure (''everything flows'') sayings. Fire exemplifies the variety and contradictions of things. Philosophers, therefore, have to pay closer attention to reason and account (*logos*). On the other hand, the Eleatic Parmenides (early 5th century BC) made the startling claim that certainty in word, thought, or existence can only apply to something positive, unitary, and unchanging. Zeno followed this by showing the paradoxes entailed by change and plurality in ordinary events.

The Athenian Anaxagoras (5th century) responded to Parmenides with the theory that the world is a mixture of all substances, and change is just the rearrangement of stuffs. *Nous* (intellect), the stirrer of the mixture, alone is incomposite. Empedocles (influenced by Pythagoreans) was the first to invent the notion of fundamental cosmic constituents, the elements. He suggested four: Fire, Air, Water, and Earth. Democritus theorized that all things, including souls, are really temporary regroupings of an infinite number of tiny, invisible ''indivisibles'' (*atoma*). Thus what truly is and what appears are different.

Socrates (5th century BC) also upheld that there are invariable principles of things but sought them through the ''right reason''. Ordinary conversations on ethics and knowledge are soon transformed into probing tests how to define things (virtue, etc.), so they are valid for all possible occasions. For his purpose Socrates employed extensively counter-argumentation. This was typically practised by the Sophists (lit. ''the clever ones''), mainly for the purpose of winning lawsuits for their paying clients. Prominent sophists, however, such as Protagoras and Gorgias, were philosophically interested in the problems of communicable account (*logos*), ethics, and the origins of human judgement.

Plato and Aristotle

Plato and Aristotle (5th–4th century BC) consolidated earlier thought (Parmenides, Heraclitus, Anaxagoras, Empedocles, Socrates), and originated an unprecedented advance in conception and expression. They were responsible for a basic division in philosophy.

Plato was Socrates' most eloquent follower. What survives are his public treatises, the dialogues, which were written as Socratic debates on key philosophical problems. Plato was also influenced by the Pythagoreans, when he was involved with power-politics at a Greek colony in Sicily. The later Plato shifted his attention, but towards what: logic, politics, or Pythagorean-type metaphysics? Plato remains controversial, for every party wants to claim the first major philosopher as their own.

Aristotle was a student at the Academy for 20 years until Plato's death. After empirical studies on the natural world, he returned to Athens to start his own philosophy and school, the Lyceum, or Peripatos. Aristotle's philosophy bears some similarities with Plato's, but in other respects it contradicts it, and in the fundamentals it is different in scope. Unlike Plato, what survives are his internal school lectures (see below on the Lyceum and on Andronicus).

For Plato, truth is found in reality, which to be unfailingly valid has to be separate from the changeable world around us. Reasoning and mathematics point the way to full, precise knowledge (*episteme*) of the ''true realities'', the ''Forms''. One of these, the Good, is ultimate. Physical things, properties, and sensations are merely the ''appearances'' (*phainomena*) of the Forms.

For Aristotle, reality lies in nature. The ''forms'' are merely the essential definitions of things. Change can be philosophically known because it involves the ''actualization'' of the ''potential'' to gain the thing's proper definition (e.g. for an oak seed to become an oak tree). However, a thing may be logically stripped, abstracted, of its various physical and mathematical properties until the philosopher examines only its essential substance, and ultimately the pure being (*on*).

The elements of the physical world for Plato are minimal shape-quantities, since mathematical properties underlie physical qualities. But for Aristotle, they are minimal qualities (hot, dry, moist, cold), because the constituents of sense-perceived things must be sensations.

In logic, Plato developed the ''dialectical'' analysis, but Aristotle constructed the formal ''syllogism'' and critically distinguished the terms of scientific knowledge. In ethics, Plato boldly prescribed the ideal virtues of both individual and society, but Aristotle analytically described the problems of choice, constantly relying on the opinion of the moderate majority.

The Schools

The period from the 4th to the 1st century BC saw the establishment of philosophical schools at Athens, their proliferation,

and greatest rivalry. Unfortunately, of their thousands of books, few survive complete, and scholars must rely on collections of fragments and reports.

The first new talent was Pyrrho (360–270 BC). He pointed out that neither reason nor sense-perception can form knowledge, leaving the suspension of all judgements. Psychologically and ethically it offers "well-being" as relief from all theories. This "sceptical" approach did not survive as an independent school, but was adopted by the Academics.

Epicurus established the main branch of his school at Athens in 306 BC. He followed Democritus' atomism, but went far further. Philosophy is practical wisdom gained empirically. Ethics shows that the natural impulse of living beings is to gain pleasure and avoid pain. Happiness is the autonomous pursuit and holding of enduring pleasure. This is found in philosophy, companionship, and modest delights. Knowledge is attained with the veridicality of sense perception, assisted by natural conceptions. Such is the "yardstick" (*kanon*) and "discerning mean" (*kriterion*) of truth.

The highly acclaimed Stoic school was founded in 300 BC by the Cypriot Zeno. He was succeeded by Cleanthes, and Chrysippus (head, 232–206 BC). They subdivided philosophy into logic, physics, and ediics, after the Old Academician Xenocrates. For Stoics, philosophy is practical, based on the world as it is. The natural world is analysed into one continuous body causally joined by a universal *pneuma* and organized by reason-principle (*logos*), which can be worshipped as divinity. Ethics shows how to lead a life according to nature, guided by reason. The "psychotherapeutic" benefit is "apathy", freedom from troublesome passions, which brings the "well-being" of happiness. Physics and logic show how natural things are constituted, and become known through the presentation (*phantasia*) on the physical senses. Stoics developed sophisticated distinctions about substance, knowledge, and logic, and their terminology influenced subsequent philosophy.

Of the older schools, Aristotle's Lyceum fell into decline. His successor Theophrastus continued the interest in natural science and philosophy. Yet, it seems that its philosophical naturalism and rationalism were better explored by Epicureanism and Stoicism, while science was better served at the new science school, the Museum of Alexandria. Strato rejected a good deal of Aristode's physics.

Plato's Academy underwent the greatest transformation. His immediate successors (Speusippus, Xenocrates) elevated mathematics and considered the Forms as mathematical objects. But Arcesilaus (Middle Academy) abandoned systematic philosophy, and returned decidedly to the Socratic critical questioning, using it to attack Stoicism. With Carneades (New Academy), the Platonic school became the champion of scepticism, extending and formalizing it. Carneades' refutation of Stoicism proved lasting.

Break, New Trends, and State Recognition

The first break happened in 86 BC, when the Roman consul Sulla sacked Athens. Institutions, including the Academy and the Lyceum, were destroyed. Philosophy diffused outside Athens and Greece, and freelancers advanced new trends. New schools often claimed succession from the original.

The Platonist Antiochus of Ascalon (1st century BC) reacted against the sceptical Academy. Instead he endorsed the positive value of Socratic thought, and showed that Aristotle and the Stoics developed particular views of Plato. Eventually this dealt the final blow to independent Stoicism: from now on there emerged Stoic Platonizers, such as Posidonius, the proponent of "universal sympathy". Nevertheless, Stoicism flourished among Romans, from Seneca and Epictetus (1st century AD) to Emperor Marcus Aurelius (2nd century AD).

Plutarch of Chaeronea (AD 45–125), head of a Platonic school at Athens, promulgated the dualism of good and evil cosmic agents. He and the Neopythagorean Numenius proved the most influential of this period's Platonizers; their doctrines entered Gnosticism, and similar Near Eastern religions. Moreover, in the 2nd-century *Handbook of Platonism* by one Alcinous, the Aristotelian forms were incorporated as the objects of sense perception. Alexandrian Platonists included the Jewish theologian Philo (who originated the Bible's agreement with Plato), and the famous physician Galen. The 2nd- and 3rd-century AD Alexandrians St Clement and Origen pioneered Christian philosophy while arguing continuity with Platonism.

Around 60 BC Andronicus of Rhodes recovered Aristotle's lectures, and edited them in the systematic form known to this day. He also started writing commentaries, amending and criticizing the doctrines as he saw fit. The Aristotelian Aristocles (2nd century AD) advocated Plato's agreement with Aristotle, so long as the latter remained the fulfilment of the former. He taught Alexander of Aphrodisias.

Scepticism found a new exponent in Sextus Empiricus (*c.*AD 200). He showed that every philosophical position has equally strong but opposite arguments, which leads to the suspension of judgement (later employed in negative theology).

Hadrian and the Antonine Roman emperors inaugurated a series of state recognitions of Athenian learning. In AD 176 the emperor Marcus Aurelius established four Athenian professorships ("successors") in Platonism, Aristotelianism, Stoicism, and Epicureanism. They were the highest-paid teachers in the empire, attracting 50 per cent more salary than the equivalent rhetoricians. However, the 3rd-century Roman civil wars starved imperial funding. Of the independent successors only the Platonists endured.

The Platonic professor was probably Atticus. He maintained dualism, and was fiercely anti-Aristotelian. The Aristotelian professor of about AD 198/209 was Alexander of Aphrodisias. He was the great systematizer of Aristotelianism, and the proponent of influential interpretations. Particularly, he identified the object of thinking with the thinking activity and intellect. This strongly attracted Platonists, such as Plotinus, who made the Forms both objects and contents of intellect.

Individual Neopythagoreans especially flourished in the 2nd century AD. For them, the pure Plato was Pythagorean. Nicomachus, author of the *Introduction to Arithmetic* (later a textbook), held unity to be the ultimate principle of the Forms as numbers. Numenius of Apamea differentiated God the creator from God supreme, and asserted that matter is both active and evil. An allied Neopythagorean was possibly Ammonius Saccas, the Alexandrian teacher of Plotinus and the Christian Origen.

Plotinus (3rd century) settled in Rome, where he attracted a wide circle of followers, including senators. He saw reality as a continuum emanating from a transcendent One, made identical

to Plato's Good. It becomes differentiated into Intellect and Soul, as degrees of being. Matter is informed by them but itself is a privation, the source of evil. For Plotinus, Plato was the philosopher who came closest to this truth. Plotinus entrusted his student Porphyry to edit and publicize his works. Porphyry had already left because he disliked Plotinus' diminishing of Aristotle.

Neoplatonists and the End of the Schools

After his departure from Plotinus (AD 268), Porphyry elevated Aristotelian studies and assimilated Stoic ethics and logic, all within a revised Platonism. Iamblichus (4th century) increased dramatically the popularity of this "harmonization", and added Neopythagorean ideas: mathematics is the reliable basis of knowledge, embracing theology. With this merger of most of Greek sectarian thinking (Epicureanism alone was rejected) into a new, unified Hellenic philosophy came the domination of higher education of the Mediterranean world.

Single schools of philosophy appeared at Apamea, Pergamum, and at the chief place of learning, Athens, where the new school called itself the "Academy" (Plutarch of Athens, Syrianus, Proclus). From Athens, philosophy schools spread to Alexandria (Hierocles, Hermeias, Ammonius), and through Alexandria even to a Christian Platonic school at Gaza.

The philosophers of the 4th to 6th centuries AD bear the modern, inadequate label "Neoplatonists". They rejected dualism, whether Gnostic, Christian, or Platonic/Pythagorean. They proposed that knowledge, reality, matter, religion, and ethics are multimodal, founded on One unqualified principle. Aristotelian logic and metaphysics are valid for the modes relating to sense perception, and to things referenced to or abstracted from body and senses. Platonism is valid for the modes fixed by intellect, for the incorporeal, permanent realities, and the One.

The Neoplatonic schools were centres for research and teaching. Accordingly, they offered an encyclopaedic education. It encompassed science (physics, mathematics, astronomy, medicine), the study of literature, interpretation (exegesis), and politics.

However, in AD 529 came the second break in the history of Greek philosophy. Emperor Justinian banned public teaching by pagans. This and the increased enforcement of state-regulated teaching ended the millennium of independent schools of philosophy.

The Athenian school closed, and after an unsuccessful trip to the Persian court, its scholars dispersed. However, Simplicius flourished after the ban as a private writer. Continuity in private would account for the story that the 7th-century Greek monk, Theodorus, who became archbishop of Canterbury, studied philosophy at Athens.

The Alexandrian school survived the ban by compromising with local authority. One of its later members, Stephanus, occupied the prestigious, sole philosophy professorship at the Imperial Academy of Constantinople (610).

LUCAS SIORVANES

See also **Academy; Aristotelianism; Astronomy; Atomism; Cosmology; Ethics; Government; Logic; Lyceum; Mathematics; Medicine; Neoplatonism; Physics; Scepticism; Stoicism**

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PHOENICIANS

"Phoenicians" is a term used first in Classical sources to describe the people occupying the cities of the Levant coast between Syria and Israel. It was a term developed by the Greeks and its origins may be a Greek form of "Canaan" or, as is more usually assumed, it derived from the word for purple dye with which Phoenicians were associated. Linear B tablets contains a word *po-ni-ka* which probably referred to this dye.

The Phoenicians were inextricably linked to the sea; their cities were those independent Canaanite states which had not been absorbed by the Aramean or Israelite expansion. Among the Phoenician cities were Arvad, Beirut, Byblos, Sidon, Tyre, and Tarsus. The names of the coastal cities became synonymous with the Phoenicians; so in the *Odyssey* Eumaeus describes the Phoenician sailors who took him captive as Sidonian, from the city of Sidon (Homer, *Odyssey*, 4. 84). Phoenician also describes the descendants of colonial populations which the people of the Levant established elsewhere in the Mediterranean. Among their better-known colonies are Citium (in Cyprus: see Michaelidou-Nicolaou, 1987) and Carthage.

The Phoenicians are best known in ancient Greek literature for their commercial enterprise which paved the way for their foundation of new settlements, the majority of which were located in the western half of the Mediterranean (Frankenstein, 1979). The major colonization phase predated the emergence of Greek colonies; Thucydides (6. 2. 6) realized that Phoenician settlements in Sicily predated Greek activities on the island.

The Phoenicians transmitted much of their own culture and that of others from the Near East to Greece with the diffusion of their settlements and their highly developed trading activities. However, the Greek image of the Phoenicians has done much to limit the popular image of their culture: rich in religion, craftsmanship, and writing. It is easy to forget that the Greek figure Heracles is in fact a reincarnation of the Phoenician god Melaurt. The poor survival of Phoenician writing makes it difficult to trace other influences. Few literary texts have survived, and the majority are brief religious dedications, honorific cult decrees, or funerary monuments inscribed on stone. The Phoenicians were also famous for their glassware (Pliny, *Naturalis Historia*, 36. 65) and their metal-work – they are said to have discovered the silver mines of Cadiz in southern Spain (Diodorus Siculus, 5. 20).

The spread of the Phoenicians westwards throughout the Mediterranean diffused an important orientalizing influence. The Phoenicians had absorbed many cultural aspects of the Assyrian and Mesopotamian civilizations, and so their influence on Greek civilization was not restricted to the transmission of their own culture. Communities on Cyprus display considerable absorption of Phoenician culture. The building styles, metalwork, and ivory objects indicate the degree of Phoenician presence; even the designs and decoration on indigenous pottery imitate Phoenician ware. Citium, in northeast Cyprus, and its inhabitants were described as Phoenician up to historical times; their most famous citizen was Zeno the Stoic philosopher.

Probably the most important legacy of the Phoenicians was the adoption of their alphabet by the ancient Greeks. The Greek alphabet developed out of the Semitic alphabet perhaps as late as the 8th or early 7th century BC. Herodotus had first suggested that the Greeks learnt their alphabet from the Phoenicians (Herodotus, 5. 58. 1–2). The word "alphabet" is derived from the first two letters of the Phoenician alphabet, *aleph* and *beta*.

The trading activities of the Phoenicians brought them into contact with the Greek world very early on. Many Greek communities may have had an element of Phoenician population; Herodotus describes how Euboea was originally settled by Phoenician travellers. Representations in Greek literature of Phoenician traders conjure up pictures of hostile pirates or pacific merchants. Their trading movements required sailing skill and well-constructed ships. The shipbuilding timber of the Levant coast was famous in antiquity. It is quite likely that the Phoenicians invented the bireme sometime in the 8th century BC: their warships were fitted with rams and must have influenced Greek shipbuilding technology. In the 6th to 4th centuries BC the Phoenicians supplied fleets to the Achaemenid kings whilst under Persian rule, and later to Alexander the Great when he overran the coastal cities in the 330s.

Phoenician presence within Greek communities expanded from the 5th century onwards. From the end of the 4th century the Phoenicians themselves were absorbing different aspects of Greek culture. This is best seen in the bilingual inscriptions of the Hellenistic period set up to worship Phoenician deities.

More is known about the Phoenicians from their own colonies in the Mediterranean (e.g. Sicily, Sardinia, Malta, Spain, and North Africa) than is known from their native coastal cities (Bunnens, 1979). Some sites, apparently known in antiquity as Phoenician, suggest a different ethnicity from their inscriptions in Aramaic. It is almost certain that the Greek idea of "Phoenician" was very broad, and may have been applied to traders from the eastern Mediterranean seaboard rather than the identifiable Phoenician centres (Morris, 1992). Their cultural presence outlived any political strength in the Hellenistic and Roman periods.

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See also **Alphabet**

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PHYSICS

Physics is one of the basic sciences in the development of human civilization. The semantic framework that defines modern physics was formulated through a series of procedures and modifications that are themselves studied by historians of science.

For many, the foundations of physics are based on the formulations proposed by certain ancient Greek philosophers concerning the interpretation of the world and the phenomena that evolve in it. These philosophers included Pythagoras, who attempted to pinpoint the physical principle of sight *c.*500 BC; Parmenides, who denied the reality of motion; and Anaxagoras, whose thoughts were directed in the opposite direction. Certain atomistic philosophers should also be mentioned, such as

Leucippus, Epicurus, and Democritus. But it was Aristotle who formulated a system of physical philosophy that dominated Western civilization up to the 17th century, when the so-called ''scientific revolution'' took place and many Aristotelian views were rejected or reformulated, notably by Isaac Newton and his successors.

Aristotelian natural philosophy was the basis for further research about natural phenomena through observation. The main contribution of Aristotle was that he created a cohesive framework of principles and rules which govern the world, including both living creatures and non-living matter. For Aristotle mere was no dispute about the reality and objectivity of the material world that is understood through human senses. He argued that there is no vacuum, a concept which he considered problematic to the way he tried to explain physical phenomena, and especially to the way he determined the movement of bodies. Aristotle made a distinction between natural motions and violent motions.

Another significant contribution of Aristotle was to transmit the hypothesis of Empedocles that the fundamental elements of all bodies are fire, air, water, and earth. These four elements were considered to be the only simple bodies for centuries, until modern chemistry proved that air was a mixture of several gases and water a compound of hydrogen and oxygen. This supposition was also compatible with the theory expressed by Aristotle that all bodies move in a way that brings them to their physical place. Lighter bodies move upwards, heavier ones downwards towards the centre of the earth. This was an example of natural motion, while the motion of a projectile was a violent one. Concerning the fall of heavy bodies Aristotle stated that they are attracted by means of their heaviness. The closer the bodies come to the earth's surface, the more the property increases. The impossibility of a vacuum, incidentally, led Aristotle to formulate a principle analogous to that of inertia.

During the Hellenistic period physics retreated as a discipline of science and other, more descriptive fields, such as geography and natural history, became more popular. Meanwhile, the influence of the Neoplatonic school was maintained. At Alexandria several scholars, such as Ammonius and his student Philoponus, tried to link ancient Greek natural philosophy with the Christian faith.

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See also **Aristotelianism**

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PINDAR *c.*518–*c.*438 BC

Lyric poet

Pindar is best known today for his four books of epinician (victory) odes which were written on commission to celebrate victories at the great games of ancient Greece. By a mixture of direct praise and the interweaving of heroic legends, they glorify the aristocratic life, whose pinnacle is victory at the games and recognition for it.

In the 2nd century BC Pindar's work was divided into 17 books, roughly according to genre. Of these the four books of epinician odes survive virtually complete. Fragments of poems in other genres survive: hymns, paeans, dithyrambs (two books), processional hymns (two books), maiden songs (three books), choral songs (two books), praise songs, and dirges. These poems, where the evidence allows of an opinion, were, like the epinicians, written on commission. In the circumstances, it is difficult to disentangle the poet's own sentiments and autobiographical material from the restrictions and demands imposed by the conventions of the medium. Many of the opinions and value judgements expressed are revealed, on comparing the epinician odes of Bacchylides, as part of the baggage carried by a writer in this genre: it celebrates victory through toil, but victory and toil appropriate to aristocrats who have the time to exhaust themselves in the non-productive pursuit of kudos. Nevertheless, it is possible, by judicious examination of internal allusions and external sources (e.g. victors' lists), to get some idea of the progress of Pindar's career, at least as a writer of epinicia.

The epinician odes are divided into *Olympians* (14), *Pythians* (12), *Nemeans* (11), and *Isthmians* (8 as well as fragments). Not all celebrate victories in these games: *Nemeans* 4 and 9 record victories at the Adrasteia in Sicyon; *Nemean* 10 a victory at the Argive Heraia; *Pythians* 2 and 3 are epistles to Hieron of Syracuse; *Isthmian* 2 an epistle to Xenocrates of Acragas, and *Nemean* 11 celebrates the appointment of Aristagoras of Tenedos to a magistracy. Almost all of the latter, however, make some allusion to the games, and follow the same overall pattern as a typical epinician.

This pattern – very roughly speaking – is, at some point in the poem, to give the details of the victory or set its scene briefly and, as soon as possible, to present one or a series of stories associated with the legendary traditions of the homeland of the victor and/or patron. The linking passages are often tenuous. Consider for example the very earliest epinician (*Pythian* 10, for a Thessalian winner in the boys' double foot race), where Pindar compares his technique to that of a bee, which flits from one theme to another (lines 53–54). Early as the ode is, it already fixes the mould in which most were cast: the victor and his family are introduced and praised, especially his father, whose good fortune extends as far as a mortal's can; but even farther are the Hyperboreans, with whom Perseus once feasted; there follow praise of the Hyperboreans and a brief allusion to the slaying of the Gorgon, whose severed head turned men to stone; no miracle is beyond belief; the finest victory hymn flits like a bee from one theme to another; the poet hopes that his poem will glorify the victor in the eyes of others, and praises the ruler of Thessaly (who seems to have commissioned the poem from him).

The victors range from the very rich who entered victorious chariots to boxers and wrestlers. There is even one *aulos* player (*Pythian* 12 for Midas of Acragas). But all are encompassed within the aristocratic ideal of nobility and noble deeds. Pindar's most distinguished patrons were the Sicilian tyrants Hieron and Theron and members of their entourages. It is clear that the

poet spent several months at least in Sicily, during the Olympic year 476 BC. He wrote three odes (*Pythians* 9 in 474 BC, 4 and 5 in 462 BC) for Arcesilas of Cyrene, in which he alludes to his own family connection with the Spartan clan of Aegeidae. But those for whom he wrote the largest number of victory odes (11) were victors from Aegina: he may have spent the years immediately before and after the Persian invasion of 480–479 BC on this island (*Isthmian* 5 of 480 BC refers to the battle of Salamis, and *Isthmian* 8 of 478 BC to the removal of the danger threatening Hellas). At *Nemean* 7. 61 he calls himself a *xenos* (guest) of the Aeginetans. It is to be remembered that not all Thebans supported the dominant faction of Medizers: 400 fought with Leonidas at Thermopylae (Herodotus, 7. 202), and after the Battle of Plataea the victorious Hellenes punished only the leading Medizers at Thebes. If it is true that Pindar was later criticized at Thebes for writing in praise of Athens, this must also be seen in the same context of divided loyalties.

Pindar's epinician career began when he was 20 in 498 BC, with a commission from Thessaly (*Pythian* 10). In the year of Marathon he had his first commission from Sicily (*Pythians* 6 and 12 for Acragas). During the 480s and early 470s BC he wrote for Boeotian Orchomenus (*Olympian* 14), Athens (*Pythian* 7 for an Alcmaeonid), Attic Acharnae (*Nemean* 2), and Aegina (*Nemean* 5, *Isthmians* 5, 6, 8). The decade or so following the Persian invasions marks the high point of his popularity and production in this genre: three odes for Thebans *(Isthmians* 1, 3, 4), three for Aeginetans (*Isthmian* 8, *Nemeans* 3, 4), one for Cyrene (*Pythian* 9), and an impressive thirteen for Sicily and southern Italy (*Olympians* 1, 2, 3, 6,10, 11,12, *Pythians* 1, 2, 3, *Nemeans* 1, 9, *Isthmian* 2). There are signs, however, that towards the end of this period Pindar found it harder to get patrons (*Isthmian* 2 of *c.*470 BC is a letter to Xenocrates of Acragas which seems to be a request for payment). For the rest of his epinician career, he cast his net more widely: there were still Aegina (*Olympian* 8, *Nemeans* 6, 7, 8), although that island's conquest by Athens almost completely cut off this source (only *Pythian* 8 of 446 BC comes from after the conquest), and Thebes (*Pythian* 11, *Isthmian* 7), but also, on the mainland Opous (*Olympian* 9), Corinth (*Olympian* 3), and Argos (*Nemean* 10), and overseas Rhodes (*Olympian* 7), Cyrene (*Pythians* 4 and 5), Tenedos (*Nemean* 11), and Camarina (*Olympians* 4 and 5).

Pindar's poems were probably meant to be sung, and many to be accompanied by dancing. The music and choreography have been lost, and only the words remain. His poetry, regardless of the genre, is characterized by a controlled extravagance of language, and a skill and agility in linking apparently disconnected themes into a satisfying whole, which is unmatched by any other poet (one has only to compare the epinician odes of Pindar and Bacchylides to see how pedestrian the latter appear by contrast).

The epinician genre more or less died with Pindar, or rather with the drying-up of the supply of patrons. The tyrannical regimes of Sicily and Cyrene had been replaced by more broadly based governments, and in general rich individuals had other claims upon their resources, particularly in the unsettled conditions that prevailed throughout the second half of the 5th century BC. The result is that Pindar's poetry, when it was used as a model by later poets, was mined only for its extravagance of imagery and apparent convolution of expression. The poets of the Pléiade, for example, wrote so-called Pindaric poetry, which fails because it completely misses not only the music and dance, which were integral features of the original, but also the occasion to which the epinician genre is bound.

It was Aristophanes of Byzantium who divided the text of Pindar into 17 books; Aristarchus (2nd century BC) subsequently worked on the text, and Didymus (1st century BC) produced extensive commentaries. By the 3rd century AD only the epinicia were still circulating widely, perhaps, as Eustathios later claimed, because they had more of human interest and less of mythology than the other genres, and were also less obscure (Drachmann, 1926, Praefatio, 34). They were thus more suitable to be used as school texts. Later, in Byzantium, Pindar was studied more for his language than for his qualities as a poet. Eustathios (d. 1194) heralds a revival of scholarly interest, to be followed by editions made by Thomas Magister, Moschopulos (both 13th–14th centuries), and Triclinius (14th century).

ALBERT SCHACHTER

See also **Poetry (Lyric)**

Biography

Born *c.*518 BC at Cynoscephalae in Boeotia, Pindar wrote lyric poetry in several genres, divided later into 17 books. Of these, four books of epinician (victory) odes survive. These were written on commission to celebrate victories at the great games. By mixing direct praise with references to heroic legend, they glorify the aristocratic life, of which victory at the games was the pinnacle. Pindar died *c.*438 BC.

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PINDUS

Mountain range in northern Greece

The Pindus mountain range stretches like a backbone through northern Greece in a position roughly analogous to the Pennine chain in England, with the difference that the Pindus is far higher and more impenetrable. Its highest peak, Smolikas, is over 2600 m above sea level, and the central Zygos or Katara pass is over 1700 m. There is now one other road over the Pindus through Konitsa, and a tunnel is being built to get over the difficulty that the Zygos pass is often closed by snow. In ancient times great generals such as Alexander the Great and Caesar won praise for their daring and leadership in crossing the

Pindus, and up until modern times travellers crossing the mountains found it a hazardous experience.

The Pindus is not one range, but a series of limestone and greenstone ranges with high plateaux in between. These plateaux provide excellent summer pasturage, but are obviously difficult of access. Hence transhumance has been practised in the Pindus from ancient times until the present day with shepherds driving their flocks into the mountains each spring, returning them to the plains of Epirus and Thessaly in the winter. Such transhumance has been particularly associated with the Vlachs. There is no certain evidence linking the Vlachs with the Pindus until the 14th century, although it is known that there were Vlachs in Thessaly and Vlachs practising transhumance before this date. The Pindus is the place where the largest concentration of Vlachs in the Balkans can be found, but there are also Greek villages in the area.

In Classical times there are references to tribes such as the Tymphaei living in the Pindus, but little is known about them. Strabo, perhaps going back to Hecateus, is well informed about the rivers which rise in the mountains (the Haliacmon, Peneus, Aous, Aspropotamus, and Arachthus) but is vague about the people of this area. In the Roman era there was no road across the Pindus, the roads in Epirus and Thessaly going from north to south rather than east to west. Strabo mentions towns at Tricca (modern Trikkala), Aeginium, Aethicia, and Chalcis (possibly modern Chaliki), all on the Thessalian side of the Zygos pass. The western side would appear to have suffered from the brutal Roman punishment of the Molossian defection in 168 BC.

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PIRACY

Ancient sources show that piracy has always coexisted with sea voyages and maritime trade. In the age that Homer described in the *Odyssey*, piracy was a profession that men entered as a recognized way of making a living. It was so widespread, and the consequences to its victims so disastrous, that settlements often moved away from coastal areas (where they were a target for raids) to locations further inland and were surrounded by protective walls (Thucydides, 1. 7).

War and piracy have always had much in common. The acquisition of booty was a vital element in ancient Greek warfare and in ancient sources it is frequently very difficult to distinguish between warfare and piracy. At the end of the Archaic period, however, with the development of organized states with mercenary armies, a distinction emerges. In the 5th century BC opportunities for plunder provided the impetus for several military offensives. During the Peloponnesian War each side plundered the other's territory by both land and sea. Several generals even used the methods of pirates to help finance their wars. These practices continued in the Hellenistic period. For example, Philip II of Macedon used the proceeds of piracy to finance the building of his navy. Another incentive to piracy lay in the custom of reprisals against an enemy.

As means of accumulating wealth, trade and piracy have much in common. Piracy posed a considerable threat to merchants: the pirates of Zancle were ideally placed to attack and seize ships passing through the straits of Messina between Italy and Sicily. The Taurian tribes in the Crimea and the Thracians developed an organized system of wrecking ships for plunder (Diodorus, 20. 25; Xenophon, *Anabasis*, 7. 5. 12). This system became so widespread in Roman times that the Romans were obliged to impose penalties on wreckers. Illyrian pirates were another source of trouble. According to Polybius (2. 5), the Illyrians had always been in the habit of pillaging along the extensive Roman seaboard; as the principal cities were located in the interior, help against such raids was distant and slow to arrive, allowing the Illyrians to overrun and plunder the surrounding territory unmolested.

Piracy and the slave trade were also closely connected. The largest centres for both activities were Crete and Cilicia, and pirates would often sell their captives into slavery. This was not always the case. Strabo, writing about the northeastern Black Sea coast, says of the local population that they lived by robbery at sea. Their boats were slender, narrow, and light, holding only about 25 people, rarely as many as 30. The Greeks called them *kamarai* (11. 2. 12). Their cruellest practice was to wander on foot night and day looking for people to kidnap but "they readily offer to release their captives for ransom, informing their relatives after they have put out to sea" (Strabo, 11. 2. 12). In this part of the Pontus pirates would attack Greek cities.

The control of piracy is usually considered to have been one of the prime functions of the Roman garrisons established along the eastern coast of the Black Sea under the principate. In the middle of the 3rd century AD large bands of marauders from the Pontus would make their way into the Aegean, plundering both shores, penetrating as far south as the coast of Lycia and Pamphylia, and forcing their way inland as far as Cappadocia (Zosimus, 1. 28; Ammian Marce llinus, 31. 5.15).

The authorities of Greece and of countries on the Black Sea tried to fight piracy to make the sea safe for voyagers and merchants. The king of the Bosporan kingdom, Eumelus (310/09–304/03 BC) "in order to protect those sailing through Pontus Euxinus . . . waged war against the Heniochi, Tauri, and Achaei who were engaging in piracy and cleansed the sea of such pirates, for which he was praised not only in his own kingdom, but also throughout the universe, for traders everywhere spread the word about his determination" (Diodorus, 20. 25).

Piracy in the Black Sea was a matter of concern to the rulers of non-Pontic countries as well. Even Pericles was aware of these dangers, and it is possible that one of the reasons for his Pontic expedition was to protect Athenian interests and trade in the Black Sea from local pirates (Plutarch, *Pericles*, 50; Diodorus, 20. 25). An inscription (228–225 BC) from a temple wall in Samothrace gives us some details of Egyptian methods there: the *strategos* (commander) of the Hellespont and Thrace is thanked for the precautions taken to safeguard the island against marauders who regularly threatened to seize the temple treasures: a detachment of horse, foot, and catapult men had been dispatched to the island (*Sylloge Inscriptionum Graecarum*, 3. 502).

In the Archaic and Classical periods the aim of pirates had been to satisfy their own needs through plunder. Rulers had resisted this. In the Hellenistic period there was a gradual change in the nature of piracy: it became more concerned with supplying the demand for slaves throughout the Greek world. Rulers began to come to an accommodation with pirates and the slave trade became one of the sources of revenue for their states. From the 3rd/2nd centuries BC local rulers were no longer concerned about piracy. On the contrary: in the Pontus, for example, they colluded with them. As Strabo reports: "[Achaei, Zygi, and Heniochi] sailing sometimes against merchant vessels and sometimes against a country or even a city ... hold the mastery of the sea. And they are sometimes assisted even by those who hold the Bosporus, the latter supplying them with mooring places, with a marketplace, and with means of disposing of their booty" (11. 2. 12). At this time Tanais became a large and famous marketplace in the Bosporus, where slaves, hides, and other goods of the sort possessed by nomads were brought for exchange for clothing, wine, and other trappings of civilized life (Strabo, 11. 2. 3).

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See also **Slavery**

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PIRAEUS

The Piraeus (in Greek: Peiraieus) is a rocky limestone peninsula situated at the northeastern end of the Saronic Gulf about 10 km southwest of the centre of Athens. Its chief features are the hill of Munychia (modern Kastella or Kastellon), which rises abruptly in the northeast, and Akte, a lower plateau that extends southwest towards the sea. According to Strabo (*Geography*, 1. 3. 18) Piraeus derives from *peran* meaning "opposite" because the peninsula was originally detached from the mainland. It possesses three harbours: from east to west these are Zea (modern Limen Zeas or Pasolimi), Munychia (modern Tourkolimani or latterly Mikrolimani), and Cantharus or Goblet (modern Kentrikos Limen). Cantharus was also known as Megas Limen or Great Harbour in antiquity. There is little archaeological evidence for any settlement that predates the 5th century BC. The region entered history in 510 BC when Munychia was fortified by the tyrant Hippias, who intended to make it the seat of his government after being driven out of Athens ([Aristotle], *Constitution of Athens*, 19. 2).

The Piraeus became important in 483 BC when, on the initiative of the politician Themistocles, the Athenians voted to allocate the proceeds from a new strike at the silver mines of Laurium to finance the building of a fleet. At the same time work began on a fortification wall to safeguard the Piraeus against attack. Previously the sandy bay of Phalerum, which lies to the east and which is "the place where sea and city are nearest" (Pausanias 1. 2. 2), had served as a roadstead for the Athenian navy, though it afforded little shelter. Thanks to Themistocles' initiative the Athenian fleet was able to play a decisive part in the defeat of the Persians in the straits of Salamis in 480 BC. Without the development of the Piraeus, Athens would never have acquired its maritime empire. Naval inventories reveal that in the 4th century BC Zea was the largest naval port with no fewer than 196 shipsheds, while the Great Harbour accommodated 94, and Munychia 82. The naval headquarters are likely to have been concentrated in the Great Harbour.

The fortification of the Piraeus was also destined to have profound consequences for its political development since it was the *thetes*, the lowest property-holding group, who served as rowers and who, when Athens became dependent on its sea power, came to acquire a leading position in foreign-policy decisions. From this evolved the intimate association between democracy and the Piraeus, whose population, in Aristotle's phrase, was "more democratic" than that of Athens (*Politics*, 5. 1303b10–12). As an administrative unit the deme of Piraeus was "a law unto itself" (Whitehead 1986, p.122). One of the clearest indications of its anomalous nature is the fact that its demarch was appointed by lot by the entire citizen body of Athens, whereas all other demarchs were appointed by their demes.

In 458/57 BC the city of Athens became linked to the Piraeus by the construction of two diverging long walls that incorporated the Piraeus and Phalerum. This wedge-shaped area could now be sealed off from the rest of Attica in time of war. Shortly afterwards a middle wall, known as the southern Long Wall, was built parallel to the western one, thereby eliminating the bay of Phalerum. Around the middle of the 5th century BC, and probably at Pericles' suggestion, the town planner Hippodamus of Miletus was invited to "cut up the Piraeus" (Aristotle, *Politics*, 2. 1267b23), which he did according to a grid pattern.

The Piraeus now began to develop as an urban entity that came to rival Athens in size. It also became the leading commercial port in the eastern Mediterranean. Since Athens was now very largely dependent on imported corn, the commercial quarter, which was known as the Emporion, was vital to its survival. The Emporion was situated along the eastern and northern shorelines of the Great Harbour. In 431 BC Pericles could boast with justification that "all the produce of every land comes to Athens" (Thucydides, 2. 38). A duty of 2 per cent was levied on all cargoes passing through the Emporion. We receive some indication of the volume of goods that it handled from the fact that in 399 BC, when trade can have barely recovered from the crippling effects of the Peloponnesian War, the state collected 1,800 talents in harbour dues.

The Piraeus was home for a very large number of metics who came from all over the Greek world and beyond. Their presence, which is evident from a variety of foreign cults established around the port, must have lent it a very cosmopolitan flavour.

Among the most prominent of these cults was that of the Thracian goddess Bendis, situated on Munychia (Plato, *Republic*, 1. 327a). Others include the Egyptian gods Isis and Sarapis, and the Phoenician Baal. It was here, too, that the cult of the healing god Asclepius was first introduced into Attica around 420 BC. According to Pausanias the most notable sight in the Piraeus was the Diisoterion or shrine of Zeus Soter and Athena Soteira (1. 1. 3).

Like any thriving port, the Piraeus possessed its sleazy underworld. Aristophanes' description of the spectacle of a man defecating in a brothel, as observed by Trygaeus as he flies over the Piraeus, was evidently intended to convey the distinctive flavour of the region (*Peace*, 164f.). Though many prosperous Athenians and metics lived in the Piraeus, given the size of its population, it is plausible to suppose that it also contained a large number of multiple dwellings or *synoikiai*, the ancient Greek equivalent of the modern tenement.

The Piraeus was critical to Athenian strategy during the Peloponnesian War when, on Pericles' advice, the decision was taken to abandon the countryside of Attica, turn Athens into an island, and coop up the entire population within the fortified area of Athens, the Long Walls, and the Piraeus. This led to a very severe outbreak of the plague, which reduced Athens' population by perhaps as much as one-third. The peace terms to which Athens agreed at the end of the war required the destruction of the Long Walls and the Piraeus circuit (404 BC). The Piraeus subsequently played a leading part in resistance to the Spartan-backed Thirty Tyrants when exiles under the command of Thrasybulus seized Munychia and drove out the Thirty.

The circuit walls and shipsheds were rebuilt by the Athenian general Conon in 393 BC. Before long the Piraeus resumed its importance as a naval and commercial port of first-rank significance. In the middle of the 5th century BC it was able to accommodate more than 350 triremes. In 330 BC Philon's so-called Arsenal was built in Zea, described by Pliny (*Historia Naturalis*, 7. 37. 135) as one of the most admired buildings of antiquity. This was not an arsenal as such but a warehouse for the storage of the sails, oars, and tackle that were removed from triremes when they were at berth. No traces of the building remain and it can be reconstructed only from the precise specifications that are preserved in an inscription authorizing the work to be undertaken. Ironically, within a decade of its completion, Athens had suffered a defeat at the hands of the Macedonians that eclipsed its naval power forever.

Under Macedonian domination (322–229 BC) the garrison on Munychia Hill became one of the four "fetters of Greece". The Piraeus now began to decline steadily in size and importance. In the 2nd century BC it served as a Roman base for naval operations against the Macedonians. Lacking the glamour that attached to the name of Athens, the Piraeus never attracted royal patronage in the Hellenistic era. The only evidence of building activity is the impressive and well-preserved theatre overlooking Zea Port, which was constructed around the middle of the 2nd century BC. In around 120 BC several major festivals were revived and celebrated on a grandiose scale, notably the Diisoteria and Munychia, whose festivities incorporated nautical manoeuvres performed by ephebes.

In 86 BC the Piraeus was ruthlessly destroyed by the Roman general Sulla who spared "neither Philon's Arsenal nor the docks nor any of its other famous architectural works" (Appian, *Mithridatic Wars*, 41). One of the few buildings to escape destruction was the Diisoterion, though all traces of the shrine have since disappeared. A number of important bronze statues, including those of *Apollo*, *Artemis*, and *Athena*, which were deliberately buried at this time, came to light in 1959. Though it continued to function as a port, notably for the flourishing trade in neo-Attic sculpture that the Roman market demanded, the Piraeus never recovered its importance in antiquity. When Pausanias visited it in the 2nd century AD, very few buildings of note were standing.

The only traces of the ancient city that are visible today include portions of the 4th-century BC circuit wall, the theatre at Zea, some shipsheds, and the restored tomb of Themistocles on the promontory of Alkimos. Virtually all that remains of the Hippodamian layout is confined to a series of boundary markers, though the modern street plan follows the course of its ancient predecessor.

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See also **Harbours; Navy; Ships and Shipping**

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PISISTRATUS

Tyrant of Athens in the 6th century BC

Solon's reforms had (perhaps inevitably) left none of the contending parties completely satisfied. He himself had proudly proclaimed that he was taking up his position "amidships" in the ship of state, i.e. that he would not go to either extreme, satisfying neither the demands being made by those without property that the ancestral land of Attica be redivided so that all would literally have a portion of it, nor the insistence of the aristocrats that the running of the city's affairs should be left entirely in their hands: "to each side what it deserved". The years 590/89 and 586/85 BC were designated in the official records as (literally) "anarchic", because no chief magistrate had been elected, due to internal dissension. In 582/81 BC an otherwise unknown individual named Damasias attempted to hold on to the archonship for an illegal period beyond his official tenure, and there are indications of an experiment with some kind of block election of archons by social and economic grouping. With continuing unrest of this kind, it was only a matter of time before some opportunist succumbed to the temptation that Solon himself said that he had been strong enough to resist, of initiating a coup d'état and taking all power effectively into his own hands. (This had already happened in many other Greek states in the preceding

two generations, and for a man in such a role the Greeks themselves had borrowed, possibly from the Lydians, the term ''tyrant''.)

The later tradition remembered, and even thought it had evidence, that Solon himself both foresaw and tried to warn the Athenians of an impending coup by his kinsman (and, the gossipers said, former lover), Pisistratus. The men were related on the side of their mothers, both tracing their descent from an early king, Codrus, and thus from a junior branch of the royal house of Pylos. What can safely be asserted is that the remains of Solon's poems have a scattering of dark hints that, if civil unrest should continue, Solon himself envisaged that an unscrupulous would-be autocrat would emerge to try to respond to the people's demands; but in what survives of his work Solon nowhere mentions Pisistratus by name; nor does it seem likely that he would have overlapped with Pisistratus' early, tentative gropings for power by more than a year or two.

Our earliest and fullest account of Pisistratus' coup comes from Herodotus (the chronology for the early Pisistratean period is uncertain, but we are in the late 560s BC). What gave Pisistratus his chance was the fact that the city was beset by factional strife, the ''Men of the Shore'' being led by Megacles, son of Alcmaeon (Megacles had married into the ''tyrant'' family of Sicyon), and the ''Men of the Plain'' by a certain Lycurgus. Pisistratus organized his own followers under the title ''Men from beyond [or ''across''] the Hills''. Attempts have been made to discover here a classification beyond the merely geographical, perhaps according to some division along ideological or economic lines, but no suggestion has been entirely convincing. It seems most probable that the names were chosen to give a rough indication of where the leaders lived and where they derived their support. Herodotus' flair for the dramatic may be leading him astray, but what he reports is that Pisistratus staged an attack on himself by his enemies, even going so far as to wound himself and claim that his enemies had done it. He reminded the Athenians of his services to them in earlier hostilities against Megara, and asked for a bodyguard. Thus reinforced, he established himself in power on the Acropolis, where the Athenian kings had resided in the Mycenaean period. His opponents put aside their squabbling and joined forces to drive him out, but Pisistratus was able to outmanoeuvre them by entering into a marriage alliance with Megacles. The alliance, like the marriage that was its surety, proved shortlived, and Pisistratus once again went into exile, this time for a ten-year period (on the likeliest chronology, *c.* 557–547 BC). He took the opportunity to make sure that he had the resources, financial and in manpower, to gain a secure grip on power. He turned to northern Greece, founding a colony on the Thermaic gulf and exploiting sources of silver near Mount Pangaeus; with this wealth (perhaps converted into a personal coinage) he hired mercenaries and called for additional support from Thebes, Argos, and the island of Naxos. Pisistratus and his troops landed near Marathon, near his family holdings and original power base in Attica at Brauron, and marched on Athens, to good omens and, if not exactly token opposition, at least a resistance that was only half-hearted; his sons were able to reassure the Athenians of their father's good intentions. To all but the disgruntled leaders of the aristocratic faction and their immediate coteries it must have appeared that a period of stability, no matter whose hand was at the tiller, was far preferable to the almost half-century of turmoil and the politics marked by family rivalries that had preceded it.

Greek writers of later periods invariably looked back on a time of autocracy as distasteful; the personal performances as well as the character of these early tyrants tended to be blackened, their shortcomings if not invented then considerably exaggerated and turned into bizarre perversions and even crimes. It is all the more surprising, therefore, that in our major sources Pisistratus comes off with a relatively clean record. Herodotus comments that Pisistratus ruled ''without disturbing the previously existing offices or altering any of the laws; he administered the state according to the established usages and his arrangements were wise and salutary''. Of course there was no office of ''tyrant'', nor do we have any indication that he assumed an actual title, such as ''Protector of the Constitution'', but Thucydides reports that he ''took care to see that one of his own men was in the archonship''. The writer of the *Constitution of Athens* remarks: ''his rule was more like a constitutional government than a tyranny''.

Pisistratus may have started as just another faction leader, but he seems to have grown in his rule. He took particular care to introduce measures that would perhaps not unify Attica in a literal sense (a role that political myth assigned to Theseus), but would at least make residents of outlying districts of the city itself feel loyalty to Athens as an integrated political entity. One especially strong weapon he had was that the religious cults tended to be situated locally and were invariably organized by the aristocratic families of the particular area. Archaeological and other evidence indicates that Pisistratus sponsored new or revitalized cults that broke down these local and class barriers and fostered a sense of unity. Thus at neighbouring Eleusis, where people of every class (including slaves) could be inititiated into the mysteries of Demeter, which promised some kind of personal survival after death, a new *telesterion* or initiation house was built, and a shrine to Demeter was established in the city itself as a kind of district office of the cult. The career of the poet-dramatist Thespis (himself a somewhat legendary figure) was launched at Athens in the 530s BC, and it is possible that from this date there were regular performances there of some kind of proto-tragedy in honour of Dionysus. Probably another shrine to Dionysus, the Lenaion, was built in the Agora during diis period. There were also various new cults of the god Apollo with separate cult titles (Hypoakraios on the west slope of the Acropolis, Patroos on the west side of the Agora), and one in particular, Apollo Pythios, appears to have been designed to compete with Delphi, with which Pisistratus was on rather cool terms. Pisistratus undertook a ritual purification of Apollo's sacred island of Delos (by removing graves, making sacrifices etc.) immediately upon his final, firm assumption of power. This should probably be seen as an attempt to shift people's attention away from Delphi, and is an anticipation of the centrality of Delos in Athenian imperial propaganda a century later.

There is no concord among archaeologists as to specifics, but most agree that an ambitious building programme was undertaken on the Acropolis. There was a large temple to the city's patron goddess, Athena (variously styled the ''Hekatompedon'' or Athena's ''Old Temple''), and architectural sculpture survives – including the lively and amusing sea monster dubbed ''Bluebird'' in the Acropolis museum – that suggests that there are

other "shrines" on a more modest scale. There was also a temple to Athena Nike, the "Bringer of Victory", at the west end of the Acropolis, on the site where a later temple greets today's visitors to the precinct. Nor were sacred structures the only ones in this building scheme (whether by Pisistratus or his sons – it is often difficult to be sure that the remains predate Pisistratus' death in 528 BC). A fountain house named Enneakrounos, "Nine Spouts", was built southeast of the Agora to bring fresh water down from the hills northeast of the city, guaranteeing an efficient and orderly water supply for the residents of Athens. The name of Pisistratus' son Hipparchus is associated with an improvement in the road system connecting the central city, specifically the Altar of the Twelve Gods in the Agora which Hipparchus is said to have dedicated, with the outlying districts. Hipparchus was also remembered as an artistic entrepreneur; he is said to have invited the poets Anacreon and Simonides to take up residence in Athens, and to have been responsible for collecting manuscripts of Homer's epics, perhaps as some kind of official text for competitions at the Panathenaic festival, which was probably not founded by Pisistratus, but may have been expanded under his patronage.

The Athenians were thus encouraged to be proud of their city and to visit it, if they lived in the countryside, as often as possible. Realistically, however, a rural Athenian spent most of his or her time on the family farm in the 6th century BC, even as later in the 5th century BC. Sculptors and artisans might be based in the city itself, and the upsurge in exports of fine black-figure Attic pottery suggests a thriving industry of production and export, but Pisistratus seems also to have taken to heart the plight of the Athenian fanner. He is reported to have made loans to the poor so that they could make a living by fanning (but he also charged a land tax of 5 or 10 per cent), and he set up a system of circuit judges who travelled the Attic countryside and settled legal disputes. As already noted, Pisistratus appears to have been careful in his observance of the forms of Athenian civic life, and, if a story told by the *Constitution of Athens* can be believed, he once even came before the Areopagus court to answer a charge of homicide; we are told that the plaintiff, perhaps not surprisingly, failed to appear. His rule was later remembered as a golden age, the "age of Cronus" (in contradistinction to the rather harsher Olympian rule of Cronus' son and successor, Zeus). There is probably a good deal of truth to this, although the foreshortening of time and dimming of collective memory may have done something to enhance his reputation with later generations of Athenians.

The evidence of his dealings with the other aristocrats is somewhat ambiguous. The Alcmaeonidae, Megacles' family, chose to play the role of martyrs. When Pisistratus died (probably 528 BC), there was no rush to substitute a different form of government or damn his memory, as happened with other Greek tyrannies; his eldest sons, Hippias and Hipparchus, may have been worried about possible competitors to succeed Pisistratus, and Herodotus reports that they had arranged for the assassination of the elder Cimon, who had won multiple victories in the Olympic Games and so might have appeared as a plausible contender for supreme power. What appears to have been the sons' preferred tactic of neutralizing opposition, however, was diplomacy and cooption. There is inscriptional evidence that in the years immediately after Pisistratus' death the chief archonship was held by his son Hippias (526 BC), Cleisthenes the Alcmaeonid, the later lawgiver (525 BC), Miltiades, future victor at Marathon (524 BC), and the younger Pisistratus, the tyrant's grandson (523 BC).

The family's control of Athenian government finally came to an end in 510 BC after a period of turmoil. An assassination attempt in 514 BC was only partly successful: the tyrant Hippias' younger brother Hipparchus was killed though Hippias himself escaped. The sources uniformly report that the Pisistratids' rule (to give the family the name by which ancient writers refer to them) became much harsher. The aristocrats saw an opportunity to dislodge the family that had held the dominant position at Athens for 36 years, but this was managed only after several failed attempts, and with the assistance of some formidable propaganda from the Delphic oracle as well as an armed invading force led by a Spartan king.

Pisistratus' reign was crucial to the development of Athenian democracy. Under Pisistratus Athens' leading and ever-contentious families were either exiled or reduced to political impotence. If he had tampered with the Solonian institutions, much (though perhaps not all) would have been lost; Cleisthenes in 508 BC would have had to start, so to speak, from scratch. As it was, the Athenians were given a tantalizing taste of the fruits of political stability and peace (no foreign engagements of any consequence are recorded for the period of Pisistratus' rule, and it is a continuing puzzle whether he even maintained a standing army and navy). Athenian manufacture and trade flourished, and the fruits of this increased prosperity went to enhance life in both city and countryside. Local workers and craftsmen were given employment, and designers and artists were imported from the more artistically advanced regions of the Near East, such as Ionia. Athenians came to see that the advancement of Athens' interests was best viewed as a community enterprise and that, as their city prospered, so did their own individual circumstances. A century later, under Pericles, Athenians of all stripes and classes were to discover how advantageous a full public treasury could be.

ANTHONY J. PODLECKI

See also **Tyranny**

Biography

Born in the early 6th century BC, Pisistratus first seized power in Athens in the 560s BC. After a ten-year exile (*c.*557–547) in Macedonia, he returned to Athens in 546 and established a tyranny. The city flourished and the period of his rule was remembered as a golden age. He died *c.*528 BC and was succeeded by his sons Hippias and Hipparchus.

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PLATAEA

City in Boeotia, site of a battle in 479 BC

Plataea was a city of southern Boeotia situated in the plain between Mount Cithaeron and the Asopus river. As the result of an attempt by Thebes to force it into the Boeotian Confederacy, the city joined an alliance with Athens in 519 BC. It subsequently provided support to the Athenians against the Persians at Marathon (490), Artemesium, and Salamis (480), before being sacked by the Persians in 479.

After the Greek victory over the Persian fleet in the bay of Salamis and Xerxes' subsequent withdrawal, the Greek forces still had to confront a substantial Persian army under the command of Mardonius. Plataea became the site of the great final battle between the Persian forces and the assembled Greek resistance in 479. The Greek victory ended the threat of Persian domination of Greece.

Mardonius, who had retired to Attica after Salamis, moved his forces to the plains of Boeotia, probably to provide more favourable terrain for his cavalry. The Peloponnesian forces, which had assembled at the isthmus, marched first to Eleusis where they were joined by the Athenians under Aristides, and then moved across the Cithaeron range along the main road and the pass of Eleutherae (Gyphtokastro).

Perhaps before engaging the Persians, the Greek allies swore the "Oath of Plataea", a pledge to fight to the death against the Persians, remain loyal to one's allies, and not rebuild the temples destroyed by the Persians. Denounced even in antiquity as a forgery (Theopompus, *FGrH* 115 F 153), scholars still debate its authenticity and its location and date of swearing.

At the battle the Spartan regent, Pausanias, led the Greek forces to victory against a numerically superior Persian foe. Herodotus' estimate for the Persian force (300,000 Persians and 50,000 Medizing Greeks, i.e. Greeks who sided with the Persians) is not accepted, although his numbers for the Greek forces (38,700 hoplites and 71,300 light or unarmed auxiliaries) are given more credence. Modern estimates give the Persians a cavalry of 10,000 with 50,000 to 70,000 infantry (plus support), perhaps 20,000 Medizing Greeks, and another Persian force of 40,000 under another commander, Artabazus.

Many details of the battle itself are still not agreed upon. After more than two millennia, changes to topographical features have made troop positions and movements impossible to prove. Even the specific date of the engagement is unknown, although mid-August of 479 is widely accepted. The general strategies of the two sides, however, seem clear: the Persians wished to employ their cavalry on the plain, while the Greek force, using hoplites in phalanx formation, preferred not to give them that advantage.

With the main Persian force assembled along a front, perhaps 8 km long, north of the Asopus with a 2-km square wooden stockade (*c.*900 acres/360 ha) to their rear, Pausanias utilized the rough terrain of his position on the lower slopes of Mount Cithaeron successfully to fight off the Persian cavalry, killing their majestic commander Masistius. Pausanias then shifted his line westward towards Plataea and the Asopus, perhaps in need of better water supplies, and moved further down the slopes. The Persians were able to deny the Greeks the river by employing their mounted archers to harass parties sent to collect water. Eventually the Persians also choked up the Gargaphia spring, a major water source for the entire Greek force; this may have forced the Greeks to attempt a more desperate course of action.

For eight days the two forces faced each other across the Asopus, neither side willing to give up its favourable terrain to attack. But after four days of raids by Mardonius' cavalry, which cut the Greeks' supply lines, Pausanias made the decision to attempt a night withdrawal to secure provisions. Confusion during the withdrawal resulted in the division of the Greek forces: the Athenians were isolated on the left, the centre just outside Plataea itself, and the Lacedaemonians and Tegeans on the right.

Mardonius, sensing that the advantage was his, ordered a general assault but, after a furious battle, the Spartans defeated his Asiatic and allied troops. The Athenians held his Boeotian allies, who fought well but disengaged under the protection of the Theban cavalry once the battle against the Greek right had been lost. Mardonius himself died in the battle, triggering a Persian retreat into the stockade where they were slaughtered once the Greeks breached its walls. Artabazus, who had maintained his troops in reserve, watched the battle develop into a rout, then retreated to Byzantium without fighting. Attempts have been made to depict the Greek victory as a brilliant ploy on the part of Pausanias, but it is impossible now to determine whether the victory was a result of luck or a clever plan.

Casualties are difficult to estimate, but the Persians probably lost about 10,000 non-European warriors and 1000 Medizing Greeks; the Greek forces suffered casualties of perhaps just over 1000 men. The Greeks had won a resounding victory that demonstrated they could inflict tremendous punishment upon a numerically superior Persian force. The Persians were no longer a military threat to the Greek mainland.

Booty from the battle was tremendous. Dedications from the spoils were made at Olympia, the isthmus, and Delphi (the triple entwined serpent-column, the remains of which is now in Istanbul, was erected on a gold tripod at Delphi). So luxurious were the spoils that this is the moment cited in antiquity when the Greeks became enamoured of wealth.

To complete their victory, the Greeks turned to punish Thebes for its support of the Persians. After a short siege, several ringleaders were surrendered to allies, who quickly removed them to the isthmus where they were executed. Theban hegemony over Boeotia was also broken.

Even more than Marathon or Salamis, the victory over the Persians at Plataea determined the course of European history. Xerxes had been defeated at sea and on land. Instead of becoming a Persian satellite, the Greeks formed the Delian League and went on the offensive.

Plataea faded in significance after the battle until the middle of the 5th century when it joined the new Boeotian Confederacy with control of two votes. The Theban assault on the city in 431 is regarded by many as the real beginning of the Peloponnesian War and, aldiough most inhabitants had fled to Athens for refuge, the remaining inhabitants only surrendered in 427 when the city was razed to the ground. Plataea was rebuilt after the war and remained independent until seized by the Thebans in 372, when refugees once again fled to Athens. Philip II of Macedon restored the city after the battle of Chaeronea (338) and the Plataeans exacted revenge against Thebes in 335 when they helped Alexander the Great destroy their old enemy. Although loyal to Rome during the Third Macedonian War, the city suffered along with the other Boeotian cities during the campaigns of Sulla in 86 BC.

Two cults, the Homonoia and the Eleutheria, which celebrated the great victory over the Persians, provided some fame for the city in the Hellenistic and Roman periods, but other than the restoration of its walls under Justinian (527–65) little else of significance is known about the city.

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See also **Persian Wars**

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PLATO 429–347 BC

Philosopher

Plato was destined for an active life in Athenian politics. He was a member of an Athenian family that traced its origins back to the famous lawgiver Solon, and although his close relatives Crito and Chanmides were discredited by their actions during the constitutional disturbances of the last decade of the 5th century BC, Plato could have carved out his own path. As Plato himself tells us in his *Seventh Letter* (now taken to be genuine by most scholars), he indeed began adult life with the usual political ambitions and was invited by his relatives to join them. Their actions were repellent, but what finally deterred Plato from ever taking part in conventional political life was the way in which powerful people brought charges against Socrates that led to his death, an action that in Plato's mind condemned both the oligarchic forces and the democratic masses. He would now devote his life to unconventional politics; that is, "having decided that all existing cities are badly governed", he would investigate "the nature of justice in both the individual and the state".

Plato would have had very few models for his own investigations. Greeks by and large looked to poets for ethical paradigms and heroes. Heraclitus wove ethical doctrines into an intentionally enigmatic prose text that lacked the detail and argumentative rigour that Plato desired. Some of the Sophists dealt with ethical matters but did so less with a desire to learn the truth and more in order to train students to come out on top in any morally ambiguous situation. Plato found his model in what was then a minor genre, the Socratic dialogue; that is, a prose drama in which Socrates and one or more fellow speakers (dialogists) would raise and analyse, or at any rate discuss, ethical matters. According to Aristotle, the first to write Socratic dialogues was a certain Alexamenos of Teos. There is also

credible evidence that an Athenian, Simon the cobbler, would scribble notes for himself that he would later work up into a more polished form. How philosophical these earlier dialogues were we can only guess. They may have been similar to the chatty and anecdotal Socratic dialogues of Xenophon that are still extant. But whereas Xenophon was chiefly interested in retelling those conversations in which Socrates expressed his own views, Plato was more drawn to the Socrates who, when it came to the most important qualities of ethical life, preferred to withhold his own opinions, frequently willing to bring the discussion to an impasse (*aporia*) ather than impose upon his fellow dialogists a conclusion that he himself could not fully endorse.

Socrates did this in part because, as he himself is made to say in Plato's *Apology*, the profession of one's own ignorance is a necessary first step on the way to the truth. He also, again according to Plato, believed that whatever truth one does attain will occur only as a result of one's having actively wrestled with the matter and elicited it out of one's own soul – a difficult matter, to be sure, but possible for a bright person who is asked the right questions. Plato, who no doubt often found himself in this situation with Socrates, proceeded to shape both real and imagined dialogues with this intriguing old man into a powerful literary form. There is therefore no voice within the dialogues that declares itself to be that of the author arguing his own cause; nor does Plato even put himself forward as narrator of any dialogue. The reader is thus put on constant guard, never sure at first or perhaps even after consideration whether any particular idea expressed by Socrates or anyone else comes with Plato's own endorsement. This is Plato's way of reproducing Socrates' habit of encouraging would-be philosophers to work things out as much as possible by themselves.

Quite naturally, therefore, apart from the speech that forms the *Apology*, Plato's earliest dialogues tend to end in the doubt that earns them the label "aporetic". Plato brings Socrates together somewhere in Athens with one or more acquaintances. Whether or not they have a specific question for him, Socrates soon raises the level of discussion from the ordinary to the philosophical. In the *Laches*, for example, the question of how fathers can educate sons in bravery quickly becomes an investigation of the very meaning of bravery. The *Euthyphro*, *Lysis*, and *Charmides* deal likewise (and respectively) with the other commonly recognized virtues of piety, friendship, and *sophrosyne* (for which "temperance, prudence, moderation" are but inadequate translations). The *Hippias Major* (whose authenticity is still doubted by some) seeks to define *kalon* ("good" or "beautiful"), a term that comprises both aesthetic and moral values. Perhaps most aporetic of all is the *Hippias Minor*, which manages to shock even Socrates when the dialogue leads him and Hippias to the statement that the man who does wrong willingly is superior to the man who does so only involuntarily. And while not aporetic, the moral message of the *Crito* is clear: Socrates owes a debt to Athens that will not allow him to escape from prison, where he lies under sentence of death.

A question that is raised more than once in these early dialogues, most noticeably in the *Laches*, is how, supposing that we can ever attain a sufficiently correct opinion concerning these individual virtues, can one generation instil them in the next. This is an important question at any time, but Plato's 4th-century BC Athens was still feeling the effects of Socrates' 5th-century BC Sophists, the professional teachers who come off so badly in Plato's dialogues not so much for their pretentious ways and their love of money as for their claim to be able to teach virtue. Whereas Hippias in the *Hippias Minor* is artfully led to an immoral conclusion unwillingly, the Sophists of the *Euthydemus* with malicious glee delight in their ability to twist the normal ambiguities of ordinary language into startling paradoxical statements, a skill that they claim will enable a citizen to excel in the law courts or wherever such "eristic" skills are valuable. The question of whether virtue can be taught at all is addressed head on in the *Protagoras*. At first, Protagoras understandably argues with a sceptical Socrates that virtue (*arete*) can indeed be taught, and by no one so well as he. In the course of the discussion, however, they somehow change sides so that by the end it is Socrates who now believes that virtue is teachable, Protagoras arguing against his earlier position. This aporetic turnabout, artfully stage-managed by Socrates and Plato, has the desired result that Socrates' young friend who had been on the point of paying Protagoras his huge fee to learn virtue is now almost certainly deterred from doing so.

Whereas up to this point Plato was content to reveal the essentially immoral nature of sophistic teaching by indirection, in the *Gorgias* he starkly reveals the results of these ill-thought-out doctrines. Gorgias himself is shown merely to be morally purblind. His students, however, Polus and Callicles, provide examples of the totalitarian political character who embraces the idea that might makes right. Another student of Gorgias reveals in the *Meno* how little he knows about the nature of virtue (as opposed to its many manifestations in different people and situations).

Having shown in so many dialogues both the existence of widespread ignorance on ethical matters and the necessity for exposing its many forms, it was time for Plato to flesh out some of the many hints he dropped in the aporetic dialogues of a more positive doctrine. In the deathbed setting of *Phaedo*, Socrates not only elaborates on his earlier statements in the *Apology* and *Crito* on the necessity of devoting one's life to the study of wisdom (which is the very serious meaning he gives to the word *philosophia*), he describes the immortality of the soul and those entities he calls Ideas or Forms. (In the *Meno* real learning was said to be the immortal soul actually recollecting what it had known before.) Although the metaphysical nature of the Forms is often studied by itself, when viewed in their contexts the Forms clearly represent an essential part of Plato's overarching ethical programme. While it is not difficult to enumerate the qualities of these unchanging, eternal, and immanent Forms, it is quite another thing to explain how one might attain direct apprehension of them for oneself.

The *Phaedo* shows how even Socrates' own most devoted followers can accept the immortality of the soul (not a difficult thing for a Greek) and yet prove incapable of absorbing it into their philosophical belief. The immortality of the Forms is even more difficult to incorporate. The *Symposium*, primarily about love, likens the apprehension of the Forms to the initiation into a mystery religion, which cannot be revealed to an outsider. In the *Republic*, however, Plato took the plunge, sketching out (his metaphor) an elaborate scheme for instituting and governing a state where justice would prevail in both its own constitution and in the very souls of its citizens. Its first book (of ten) is

modelled on an aporetic dialogue in which the object of discussion is justice. Socrates, however, not allowed to run off after having dispelled various mistaken notions, is compelled to continue with a more positive doctrine of justice, which, it turns out, governs some of the cardinal virtues treated in earlier dialogues. Maintaining the proper relationship among the parts of the soul makes for a just individual, who in turn along with a like-minded citizenry will serve the state – whether as ruler or follower – so that all elements work together in a harmony that Socrates calls justice. Rulers can come only from that elite group of men and women who have pursued a course of education so rigorous that they are able to apprehend the Form of the Good, the nature of which demands that they work for the good of the state. Complementary to the idea that Good demands good is the Socratic paradox that nobody does wrong willingly.

The *Phaedrus*, like the *Symposium*, seeks to understand love through speeches; here, however, Socrates emphasizes less the content of a speech than its form, which, it is argued, should be clearly and naturally articulated. This notion of proper composition calls for a discussion of what Plato will develop in later dialogues, namely analysis of the subject to be defined by a process of collection (of all similar things) and division (of the whole into its parts). The *Phaedrus* is one of Plato's great literary accomplishments. On the whole, however, it may be said that after having considered, with some justification, the *Republic* as the culmination of all of his earlier virtue-oriented writings, Plato now felt free to explore and develop some of the logical consequences of his theory of Forms. This is not to say that the later dialogues lack all literary touches – the *Theaetetus*, for example, is informed by metaphors of pregnancy and birth that illuminate the process whereby Theaetetus is questioned on the meaning of knowledge – but it must be admitted that the *Sophist*, *Statesman*, and *Philebus* have far fewer readers (outside philosophy departments) than the earlier dialogues. Among late dialogues, perhaps only the *Timaeus*, with its fascinating attempt to describe the cosmos by marrying Greek science and religion, commands a wide readership. The *Laws*, the longest dialogue, both complements and, as an older and more conservative Plato must have imagined it, corrects the picture of the ideal state described earlier in the *Republic*.

Plato's influence on later thought was felt immediately and has lasted until the present. The school he founded in the sacred grove known as the Academy lasted until the 6th century AD. Aristotle, denied advancement with the Academy, continued with his own school in Athens and in his writings continued until the end of his life to argue with his teacher. Nor could any other school of western philosophy ignore him; they either adopted, adapted, or overtly rejected the basic doctrines of Plato.

DAVID SIDER

See also **Academy; Aesthetics; Philosophy; Socrates**

Biography

Born in Athens in 429 BC to an ancient and wealthy family, Plato was destined for a political career but decided to devote himself to philosophy after the death of Socrates. He founded a philosophical school known as the Academy whose original aim was to train prospective statesmen. He visited Syracuse several times in a vain attempt to convert Dionysius II to his philosophical ideas. He published his theories in the form of dialogues, dramatic conversation pieces, of which some 30 survive. He died in 347 BC.

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PLOTINUS AD 205–269/70

Philosopher

Plotinus was the most influential and important philosopher of ancient Greece after Plato and Aristotle. His philosophical system, though based primarily on Plato, was deeply influenced by Aristotle. Stoicism, too, was an important ingredient as well as the ideas of those intervening philosophers and scholars who commented on, developed, and frequently sought a rapprochement between the thought of their great predecessors. His influence, at first direct, on his successors Porphyry, Iamblichus, and Proclus and, subsequently, indirectly through them, on later thinkers had a profound and lasting impact on the way

in which Greek philosophy, and particularly Plato, was viewed and on the development of Christian theology, particularly in the Orthodox tradition, which was more receptive of Platonic ideas than the western Church. It is, then, important to grasp some of the basic tenets of Neoplatonism that were given their classic shape by Plotinus, though refined and systematized by later Neoplatonists.

Although Plotinus was deeply imbued with the philosophy of Aristotle as well as that of the Stoics, he regarded himself primarily as a follower of Plato, the hidden implications of whose works he sought to explicate and develop. The term Neoplatonist is modern and Plotinus would have regarded himself simply as a Platonist. He came from Lycopolis in Egypt and was educated in the philosophical schools of Alexandria. Political circumstances brought him to Rome where he founded a school in a private house. He did not start to write down his ideas until he was 50 years old and his system was well thought out, but his treatises give the impression of a lively philosophical dialogue, at times almost of a seminar, in which problems, issues, and objections are thoroughly aired. His treatises were not published until many years after his death by his pupil Porphyry who arranged them in sets of nine: hence the curious title *Enneads*. One result of Porphyry's diligent work as an editor is that Plotinus is the only philosopher of antiquity whose works survive in their entirety.

Plotinus laid great emphasis on the two-world view of Plato, who regarded the physical world as an image of a transcendent world of archetypal Forms and the true home of the soul which, during its earthly life, may be considered to be in exile. Plotinus, however, gave far greater stress to this sense of exile and the necessity for the soul to divest itself of its earthly burdens and return to its original home by a process of moral and intellectual effort leading to mystical union with the supreme principle. At the same time, however, he could see the physical world, in the optimistic context of Plato's *Timaeus*, as the best possible image of its divine maker, indeed as a god in its own right. The idea of return to God as father from exile in this world and the spiritual earnestness with which it was expressed by Plotinus were naturally appealing to Christian writers such as Basil. For Plotinus, however, this return of the soul was not dependent on the grace of God but on the innate capacity that we all have, if only we would use it, to recognize our own worth, our kinship, and ultimate identity with the divine. Plotinus himself had little time for religious cults and even less time for those such as the Gnostics who denigrated the physical universe as the creation of a fallen God.

Equally appealing and influential was Plotinus' complex development of Plato's transcendent world into three levels: above all is the One, the source of all, which gives rise to Intellect (*nous*) from which Soul derives. Although these levels of reality are subordinate to each other, they provided a fertile source for Christian Trinitarian theology. Less obvious but more subtly influential were his complex speculations about the relationships within Intellect which provided a model and a language that Christian theologians could employ to describe mutual relationships within the Godhead. For Plotinus thinker, thinking, and object of thought are substantially identical, though conceptually distinct. The concept of the One also proved influential. For Plotinus this ultimate principle, source of all unity, was beyond all description. It could be indicated only by affirming what it was not. This so-called negative or apophatic theology was to have a long following, including Gregory of Nyssa and pseudo-Dionysius. Equally influential was the way in which Plotinus attempted to describe and analyse his personal mystical union with the One, "the flight of the alone to the alone".

The *Enneads* were read and quoted by Eusebius of Caesarea, Basil the Great, and Gregory of Nyssa. They became fashionable again in the 11th century partly through the interest of Michael Psellos, who also knew Proclus' commentary on them. In the 15th century Gemistos Plethon's Neoplatonic religion owed much to Plotinus and it was his pupil Bessarion who brought manuscripts of Plotinus to the west. But the indirect influence of Plotinus is probably of even greater importance for the Greek east. Although Plotinus had never been official head of the Academy or even visited Athens, his interpretation of Plato gradually became accepted and more systematically developed under a sequence of Academy heads including Plutarch of Athens, Syrianus, and, most importantly of all, Proclus, whose works had a profound influence on pseudo-Dionysius the Areopagite. The great pagan philosophical and Christian centre of Alexandria was also influenced both directly and through the Academy at Athens, as scholars moved freely between the two cities. Although this form of later Neoplatonism was in many respects quite different from that of Plotinus, the *Enneads* remain the vital source and the most dynamic exposition of Neoplatonic ideas and thus the essential text to which all subsequent Neoplatonists have returned and from which all modern study of Neoplatonism takes its start.

ANDREW SMITH

See also **Neoplatonism**

Biography

Born at Lycopolis in Egypt in AD 205, Plotinus was educated in Alexandria where he was a pupil of Ammonius Sacas. In 245 he moved to Rome where he founded a school and taught philosophy. His pupils included Porphyry. Plotinus was the greatest of the Neoplatonists and wrote philosophical treatises which were published after his death by Porphyry as *Enneads*. He died in Campania in 269/70.

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PLUTARCH *c.*AD 50–120

Prose writer

Plutarch came from the Boeotian town of Chaeronea where he lived for most of his life. In his writings there are regular references to various local landmarks, such as the tomb of Lysander on the road leading from Delphi to Chaeronea (*Lysander*, 29. 3). These details cumulatively suggest his fondness for his birthplace, which he once wryly said that he did not wish to leave, for fear of making a small place even smaller (*Demosthenes*, 2. 2). In addition we have an inscription from the base of a statue which was found in Chaeronea: "Philinus dedicated to the gods [this statue of] Plutarch the benefactor" (W. Dittenberger, *Sylloge Inscriptionum Graecarum*, 3rd edition, 1915–24, 843B). This inscription shows that Plutarch had a warm relationship with his home town, but it is clear from his writings that he still found time to travel. Thus at Ravenna Plutarch claims to have seen a statue of Marius (*Marius*, 2. 1), and in northern Italy, when he was travelling with his friend the ex-consul Mestrius Florus, he visited the civil war battlefield at Bedriacum (*Otho*, 14. 2). For the last 30 years of his life Plutarch was a priest at the Greek sanctuary of Delphi (*Moralia*, 792F) and the knowledge of antiquities that he acquired there can be seen throughout his works. For example, Plutarch notes that there existed at Delphi a statue of *Aphrodite of the Tomb* and he uses this fact to suggest why the Romans used to sell items for funerals in the precinct of Libitina/Venus (*Moralia*, 269B). In addition he wrote whole essays that draw on his knowledge of Delphi, including *On the Pythia's Prophecies* and *On the Delphic E.*

Plutarch undoubtedly loved Greece, but at the same time he was a Roman citizen, as we know from an inscription that refers to him as Mestrius Plutarch (Dittenberger, 843B). This name suggests a link between his acquisition of citizenship and his friendship with Mestrius Florus, who was one of a circle of influential Plutarchan contacts that also included Sosius Senecio, to whom the *Parallel Lives* are dedicated. Thus Plutarch was a Janus figure, a Roman citizen who retained a strong Greek identity, but who could see positive qualities in both cultures. Plutarch valued the stability that came with the Roman imperial system (*Moralia*, 317C), but saw the influence of Greek culture on Rome as valuable and even as necessary: "for the time in which Rome reached its greatest success was the time when it welcomed Greek studies and education" (*Cato the Elder*, 23. 3).

Plutarch's most remarkable achievement lies in his vastly rich and varied body of written work. The Catalogue of Lamprias, which is itself incomplete, lists 227 different works. Today we possess 78 essays by Plutarch on a range of topics, which are known collectively as the *Moralia*, and 50 *Lives*. Subjects that Plutarch addresses in the *Moralia* include philosophical questions, historical issues, religious antiquities, rhetoric, and literary themes. Plutarch's most popular works, however, are the *Parallel Lives*, in which he presents pairs of biographies, one of a Greek and one of a Roman protagonist, including in most cases a brief comparison or *synkrisis* at the end. These *Parallel Lives* were not Plutarch's first attempt at writing biography. Probably before AD 96 he had composed the *Lives of the Caesars* about the eight Roman emperors from Augustus to Vitellius. Unfortunately, only the *Galba* and the *Otho* have survived, although there is some material in the *Moralia* that it is tempting to think may have appeared in the other lost imperial *Lives of the Caesars*. For a man who claims that his knowledge of Latin was acquired later in life (*Demosthenes*, 2. 2. 4) researching these imperial biographies cannot have been easy and Plutarch certainly did not have the advantages of the later imperial biographer Suetonius, whose post as imperial secretary gave him access to some unique documents and archives about the emperors. However, Plutarch persevered with his reading of Latin sources when researching the subjects of his *Parallel Lives*. This strategy of pairing Greek and Roman lives was innovative and symptomatic of an era when interaction between Greek and Roman cultures was gaining momentum: the *Parallel Lives* appear to have been written early in the 2nd century AD under the more enlightened principates of Trajan (emperor AD 98–117) and Hadrian (emperor AD 117–38). Previously, biographers such as Cornelius Nepos and Varro had certainly written groups of lives centring on men of a particular profession, such as orators, poets, and generals, but Plutarch allowed himself the potential for developing vivid and subtle portraits by restricting himself to delineating only two subjects at a time in the *Parallel Lives*, apart from the one double pairing of *Agis and Cleomenes* and *Tiberius and Gaius Gracchus*. His biographical corpus as a whole was extensive, but he kept his readers' interest alive by his tremendous powers of description and by his astute eye for detail. As Plutarch famously says: "Nor is it always the most famous actions which reveal a man's good or bad qualities: a clearer insight into a man's character is often given by a small matter, a word or jest, than by engagements where thousands die" (*Alexander*, 1. 1–2). Rather than offer long authorial analysis of an individual's personality, Plutarch often allows character to emerge from carefully chosen anecdotes, which enable readers to draw their own conclusions about the subject of the biography. Moreover, Plutarch often devotes considerable attention to characterizing other protagonists in his biographies. For example, his portrait of Cleopatra in the *Antony* is unforgettably vibrant, and by serving as a foil to Antony, the Egyptian queen further deepens our understanding of the Roman general.

Plutarch's writings rapidly became popular. In the Byzantine era there were more transcriptions made of Plutarch than of any other ancient author. Strikingly, one scholar, John Tzetzes (died *c.*1180), when he fell on hard times, resigned himself to selling almost all his library but refused to part with his Plutarch. The individual to whom we owe the greatest debt for the preservation of Plutarch's works is undoubtedly Maximos Planudes. In 1294/95 Planudes, who was devoted to Plutarch, assembled a group of scribes whose task was to make copies of a large portion of the *Moralia*, as well as the *Galba* and the *Otho*. The *Parallel Lives* and the remaining essays from the *Moralia* were added to the project in 1296. Without Planudes's determination to collect the scattered pieces of the Plutarchan corpus we would almost certainly have had a much more fragmentary knowledge of Plutarch's work today. Testimony to the continuing interest in Plutarch can be found in the pervasive but inaccurate medieval tradition that the author had served as tutor to the emperor Trajan, just as Aristotle taught Alexander. There is even a Latin version of a "letter" supposedly written by Plutarch to Trajan and consisting of a compilation of quotations from the surviving works. During the Renaissance Plutarch was translated into French by Amyot (*Lives* 1559 and *Moralia* 1572)

and into English (via the French) by North (*Lives* 1579). Material from Plutarch was also used by William Barker in 1578 to supplement the incomplete text of Appian on the civil wars. Such translations provided crucial inspiration for Shakespeare and Montaigne. More recently Mary Shelley made Frankenstein's monster a devotee of Plutarch's *Lives* and Harry S. Truman allegedly learned some valuable political lessons through reading the *Lives*. Today Plutarchan studies are thriving on a global level: not only is there *Ploutarchos*, the journal of the International Plutarch Society edited by Dr F. Titchener, but one can also access *Chaironeia*, a lively site devoted to Plutarch on the World Wide Web maintained by the University of Texas.

RHIANNON ASH

See also **Biography and Autobiography**

Biography

Born in Chaeronea *c.*AD 50, Plutarch spent most of his life there, though he was a Roman citizen and he did travel to Egypt and Italy. For 30 years he was a priest at Delphi. His writings were copious and varied: 78 essays (*Moralia*) and 50 *Lives* survive. He died soon after AD 120.

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POETRY, EPIC

"Homer is enough for everyone", remarked Theocritus (16. 20), and interestingly this is true: the Homeric poems stand at the beginning of extant Greek literature, and the scope of their achievement is such that they constitute defining examples of what came to be known as epic poetry, as well as becoming a fixed standard against which all subsequent epics were assessed. An epic on the Homeric model is a substantial narrative poem that is composed in dactylic hexameters, that has an elevated tone, and that concerns the exploits of gods and heroes, the subject matter being drawn from traditional myth. Epic poetry also had numerous conventional features: formulaic language, frequent archaisms, extensive use of parataxis, ring-composition, type-scenes (e.g. describing arming, dining, etc.), digressions, and extended similes. This picture is consistent with modern notions of what constitutes epic; the ancient understanding of the genre, however, remains uncertain in important respects. The word "epic" – derived from *epos*, literally "word" – seems originally to have been used chiefly of poetry composed in dactylic hexameters (not only the Homeric poems), but also didactic poetry in the Hesiodic tradition and of philosophical poems by early philosophers, such as Parmenides and Empedocles. In later antiquity the term was applied more narrowly to the genre exemplified by the Homeric poems. It is not clear precisely when *epos* became "epic" in the modern sense, although it seems that some idea of an epic genre is implicit in Aristotle's treatment of poetry.

Aristotle's *Poetics* was enormously influential in consolidating and determining ancient views of the genre. Although ostensibly concerned with tragic poetry, the *Poetics* refers to the Homeric poems more often than to any tragic text, and Aristotle's keen engagement with epic is everywhere in evidence (chapters 23 and 24 are particularly relevant). Central for Aristotle is the organic unity of plot (*mythos*), which must comprise a "beginning, middle, and end". As in the case of tragedy, epic plots should be compact, and their unity should reside in events, not character. In this light he called attention to the conspicuous superiority of the Homeric poems and compared them favourably with other products of the early epic tradition. Later critics occasionally offered a broader definition of epic, suggesting, for example, that didactic and pastoral poetry be included (Quintilian, 10. 1. 46, 10. 1. 85), but the view implicit in Aristotle's *Poetics* remained dominant, constituting a point of departure for later poets.

As early as Aristotle (e.g. *Rhetorica*, 1406b3; *Poetics*, 1459b35), commentators had regularly viewed many of the conventional features as simply characteristic of epic dignity; during the 20th century scholars have determined that the style of Homeric poetry and the character of its narrative were indicative of the oral nature of epic poetry in early Greece, and that many apparently idiosyncratic features of these poems were rooted in a tradition of at least partially improvised song. This has led to a widely accepted distinction between ''primary'', or traditional oral epic and ''secondary'', or literate epic, the familiar tradition of epic poetry composed with the aid of writing by a literate poet.

It is important to note that the *Iliad* and the *Odyssey* were not the sole products of the early epic tradition. There is evidence for a series of poems called the Epic Cycle, which seem to have offered an account of the world from the beginning to the close of the heroic age. None of these poems is extant, but fragmentary evidence – most notably summaries of a number in various late mythographers (of especial importance are those by Proclus) – allows us to form some impression of the series. Best attested are the poems describing the Trojan War. The *Cypria* provided the background to the war and events leading up to the point at which the *Iliad* begins. There is some evidence to suggest that the beginning and the end of the *Iliad* were adapted to fit more comfortably in the sequence. The sequel to the *Iliad* was provided by the *Aethiopis*, the *Little Iliad*, and the *Iliou Persis*. These poems follow the Trojan myth from the death of Hector to the sack of Troy and the departure of the Greeks. The *Nostoi*, which detailed the homeward journeys of some of the central Greek warriors, marks a transition to the *Odyssey*, the action of which was followed by *Telegonia*, which brought an end to the story of Odysseus' life. In addition to the Trojan War epics, the Epic Cycle is known to have comprised shorter poems on largely unrelated mythic themes: a *Theogony* and *Titanomacby*, covering ground familiar from Hesiod; and an *Oedipodia*, *Thebais*, and *Epigonoi*, providing influential treatment of Theban myths. Other early epics were no doubt in circulation in antiquity, and some may have been included in the Epic Cycle, but no trace of such an ascription can be found among extant ancient sources. We are aware of a number of other poems from the 7th and 6th centuries BC that are often described as epics, although that term may simply mean that they were hexametric. Some of these shadowy poems, such as the *Naupactia* and the *Theseis*, seem to have treated traditional myths; others, like the *Arimaspea* ascribed to Aristeas of Proconnesus, seem to have had affinities with other poetic traditions.

The whole Epic Cycle was ascribed to Homer by many, but other poets are frequently named. Among them are Stasinus, Arctinus, Lesches, and Thestorides, although today these poets are at best little more than names. The Homeric ascription is none the less telling, for it reflects the character of these poems and the way in which they complement the *Iliad* and the *Odyssey*, and in this latter point we can discern the underlying motivation for the formation of the Epic Cycle. As the adjustments made to the beginning and end of the *Iliad* suggest, the cycle's sequence is not natural and indicates some kind of editorial intervention. The precise nature and date of this intervention, however, remain uncertain. Whereas explicit mention of the cycle as a whole is not found until late antiquity, the Trojan cycle seems to have been current at least as early as the 4th century BC, when the alternative beginning of the *Iliad* is first attested.

Although evidence of the existence of the Epic Cycle is too fragmentary to allow any certainty, it is likely that the cycle, along with the Homeric poems, represented a fixing of the oral tradition of epic in textual form, and this may be true of the other epics known from the early period. The transition to ''secondary'' epic seems to begin in the 5th century BC. Panyassis of Halicarnassus, who was a kinsman of the historian Herodotus, wrote a *Heraclea* that was well regarded by ancient critics. Although the few surviving fragments seem to reflect the conventional language of oral epic, we seem for the first time to be confronted with a poet who was clearly a historical personage. More noteworthy was the *Thebais* of Antimachus of Colophon, who flourished at the end of the 5th century BC. Although few fragments of any length survive, it is clear both from what little remains and from the ancient *testimonia* that Antimachus' work was characterized by a new sensibility that manipulated the language of epic in a selfconscious way. For subject matter Antimachus looked back to the Theban myths of the *Thebais* from the Epic Cycle, but his treatment seems to have anticipated the learned and allusive manner of Alexandrian poetry. Another notable development from about the same time is the work of Choerilus of Samos, whose *Persica* treats a historical subject, the Persian invasion of Greece. Hexametric poetry on historical subjects is first attested in the second half of the 8th century BC with the *Corinthiaca* ascribed to Eumelus, but Choerilus' *Persica* is the first known work to present what is clearly an epic treatment of such a theme. Although this poem survives only in brief fragments (some of them on papyrus), we are fortunate in having a few lines (fr. 317 *SH*) that seem to derive from a passage (possibly the proem) in which the poet addressed the issue of stylistic innovation.

It is difficult to gauge with certainty the degree to which epic flourished in the post-Classical world. There is considerable evidence for poems in hexameters – a number clearly of some length – and this has led many to conclude that the literary landscape of the Hellenistic world was richly populated with many epic poems that are now lost. Other scholars are more sceptical, arguing that hexametric poetry is not necessarily epic; these lost poems could easily have been accounts of historical events or panegyrics. Whatever the truth of the matter, it remains nonetheless true that the Hellenistic world provides some striking responses to the challenge posed by the Homeric poems. The most obvious of these is the *Argonautica* of Apollonius of Rhodes, a product of the scholarly world of the royal library at Alexandria and the only epic extant from the period between the Homeric poems and the imperial period. Apollonius' epic is a creative reworking of the Homeric poems that recounts the expedition of Jason and the Argonauts in quest of the golden fleece. Apollonius' response to Homer is flexible and subtle, drawing on Homeric language and narrative manner yet producing an epic very different from the Homeric poems, one that is very much rooted in the tastes and preoccupations of the literary circle of the Alexandrian court.

Equally notable was the epic written by Apollonius' contemporary, Callimachus, whose (now fragmentary) *Hecale* represented a striking attempt to produce a new kind of epic. The poem recounted the reception of Theseus by a humble old

woman named Hecale on the night before the hero was to face the bull of Marathon. The time-frame of the poem seems to have covered little more than a single day, but through the careful use of digression, flashback, and foreshadowing, the poet offered considerable insight into the two central figures. The focus on Hecale's humble hospitality rather than the celebrated combat with the bull seems to indicate a deliberate attempt to reposition epic tone; it is as though the *Odyssey* were to be retold from the point of view of Eumaeus or Erycleia.

The most influential successors to the Alexandrians were Roman poets such as Virgil, Ovid, and Lucan. But Greek epic continued to be composed in the imperial period. Quintus of Smyrna, writing in the 3rd century AD, produced the *Posthomerica* in 14 books, which dispenses with the familiar epic proem and continues directly from the last line of the *Iliad* to treat the Trojan myth that originally formed part of the Epic Cycle. On a more ambitious scale was the *Dionysiaca* of Nonnus of Panopolis. Composed in 48 books – the aggregate total of the *Iliad* and the *Odyssey* – this poem narrated the birth of Dionysus and his battles in India. Nonnus' elaborate language and highly rhetorical manner constitute an attempt to forge a new kind of epic style; in his detailed literary and mythological learning Nonnus is reminiscent of the Alexandrians. The influence of Nonnus can be detected in the small-scale epics on Trojan themes by Colluthus and Tryphiodorus.

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See also **Oral Tradition**

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POETRY, LYRIC

"Lyric" is a term commonly used to describe a wide range of Greek poetry; it is in fact applied to most poetic forms, excluding stichic hexameters and drama. The word itself suggests a more precise meaning: it is derived from *lyra* ("lyre"), and this indicates that lyric poetry was originally performed to the accompaniment of a stringed instrument, its range later being broadened to include iambic and elegiac poetry. The modern usage of the word can be imprecise. Lyric poetry was not considered a literary genre until the Hellenistic period; in early texts we occasionally find the word *melos* ("song"), and so "melic" is a convenient modern term often employed to designate lyric proper, although this obscures the fact that elegy also was sung. Greek lyric comprises both solo song (often called monody) and choral poetry, although it is unlikely that ancient scholars made this distinction. Apart from the victory odes of Pindar, no early Greek lyric poetry survives in an independent manuscript tradition, so that we are forced to work with fragmentary texts, some of which are preserved on lacunose (mutilated) pieces of papyrus and others quoted by later authors. Complete poems are all but nonexistent. Still, despite such incomplete evidence, considerable variety can be discerned in the extant lyric texts. These poems are characterized by elaborate metrical patterns, often organized in strophes consisting of three or four lines, sometimes in larger units of corresponding strophe and antistrophe followed by an epode of a different metrical character.

The performance of song can be imagined as taking place in a variety of settings, the performers being no doubt either soloists or communal groups. In the celebrated scene in the *Iliad* Achilles may be giving such a performance when he sings "the glorious deeds of men" while accompanying himself on the lyre (9. 186ff.), although that passage has regularly been understood as referring to heroic song in the epic tradition (the songs of Demodocus in *Odyssey*, 8 are similar). The *Iliad* also mentions songs that are familiar from the later lyric tradition: the paean, most familiar as a hymn to Apollo (1. 472–73, 22. 391), the *threnos* or formal lament (24. 720ff.), the *ailinos* or dirge (18. 570), and the *hymenaios* or wedding song (18. 493). These songs are all rooted in the religious traditions of Greek communities, and cult seems to have constituted one of the commonest settings for the performance of song, and, perhaps more important, the religious context seems to have influenced the character and development of principal lyric genres. This is not to say that song was confined to sacred occasions; doubtless it featured in many secular settings too. Brief fragments of soldiers' marching songs (*Poetae Milici Graeci*, edited Page, 1962, frr. 856 and 857) and songs sung at work (*PMG*, fr. 869) suggest that Greek life was alive with song – in fact, early Greek society has been characterized as a "song culture".

Modern knowledge of Greek lyric begins in the 7th century BC, and the period from then down to the 5th century BC witnessed an extraordinary flowering of lyric; in fact, this period is often called the Lyric Age of Greece. It is sometimes said that lyric poetry was "invented" at this time, but there was clearly already a long tradition of popular song, and the preservation of poetry beginning in the 7th century BC no doubt coincides with the relatively recent introduction of writing and its use for recording poetry, a process that also brought about the preservation of the Homeric poems. These early lyric texts became the objects of considerable scholarly interest, first in the school of Aristotle, and later in the great library at Alexandria, where the texts of the central poets were edited and annotated. It is largely through the eyes of Hellenistic scholarship that we today view the fragmentary remains of the work of these poets, and we still make considerable use of that system of classification and categories, although it is clear that it imposed distinctions that obscure as well as clarify the issues. Perhaps the most pernicious is the rigid formal distinction between monody and choral song. Stesichorus and Pindar are classified as choral poets, and their surviving works have been seen to reflect a tradition of choral song that also stands behind the choral poetry of Greek drama; but recent discussion has challenged this view, and it now seems likely that this firm classification may be misleading, and that both monodic and choral performance were possible.

Working from the texts preserved in the library at Alexandria, scholars established a canon of nine lyric poets of the Archaic and Classical period. This list is avowedly selective, purporting to include only the finest exponents of lyric poetry, and we know incidentally of a number of lesser figures. Nevertheless the Alexandrian canon gives some impression of the character and range of the poetic activity in the early period. In chronological sequence, first comes Alcman, who was active in Sparta in the mid-7th century BC. He is best known from an extensive papyrus fragment containing a portion of a long *partheneion* ("maiden song"), a genre for which the poet was well known, in which a chorus of nubile young girls sing a song that strikingly combines both traditional myth and self-presentation at a local religious festival. Much remains teasingly uncertain, and we are reminded of how closely bound much of early Greek poetry was to the occasion for which it was intended. Next we encounter Alcaeus and Sappho, who both composed monody on the island of Lesbos and represent what was clearly a distinctive Aeolic tradition of song. Alcaeus' poems seem to have been sung against the backdrop of the political factions in Mytilene at the close of the 7th century BC. Sappho lived during the same period, and the remains of her work afford a tantalizing glimpse into the private world of young women as they prepared for marriage. Stesichorus was born in Himera, in the western part of the Greek world. He seems to have been a contemporary of the Lesbian poets, but the fragments of his work betray little of his world; he composed large-scale lyric treatments of traditional myth, and his strongest affinities seem to be with the epic tradition. It has generally been assumed on formal grounds that Stesichorus' poetry was choral, but recent scholarship has increasingly been inclined to see these poems as the products of a tradition of solo song. Ibycus and Anacreon both seem to have moved in the world of the tyrants of the 6th century BC, and we can gain from the extant passages of their poetry an arresting impression of the aristocratic symposium. Simonides of Ceos, his kinsman Bacchylides, and the Theban Pindar are the great lyric voices of the Classical age; they composed in an impressive range of genres, but it is the surviving victory odes by Pindar and Bacchylides that give us the clearest picture of their art.

The latter part of the Classical period witnessed the decline of lyric poetry. The bold experiments of dithyrambic poets of the "new music" led to the subordination of poetry to music. In the Hellenistic period changes in social organization seem to have led to a severing of that important connection between occasion (especially religious festivals) and specific poetic forms. Once free of the need to produce the familiar forms for traditional occasions, poets were able to reconsider the established genres and give them new expression. During this period the epigram emerged as a remarkably flexible form, and quickly became the favoured medium of small-scale poetic expression. Lyric poems, however, continued to be composed, although many seem to have been prompted by special occasions and there is little impression of a continuous tradition of lyric song. From the imperial period little survives of importance. The *Anacreontea*, a collection of poems written after the manner of Anacreon, are variable in quality, but exerted considerable influence on western poetry. More interesting is Hadrian's freedman, Mesomedes, who lived in the 2nd century AD. A collection of 13 poems survives in a manuscript tradition that also preserves musical notation for four of them; there are also two poems preserved in the *Palatine Anthology* (14. 63 and 16. 323). Mesomedes employed a number of metres and attempted to produce novel verbal effects and colouring in poems on a striking range of subjects.

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See also **Song**

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POLITICAL HISTORY TO 490 BC

Although a preoccupation with defining personal and collective relationships both within and between communities can be assumed to date back at least as far as the Neolithic period, the current state of knowledge makes it impossible to write a coherent political "prehistory" of Greece prior to the emergence of the polis (city state). While archives of Linear B tablets are now known from Mycenae, Tiryns, Midea, Thebes, Pylos, Knossos, and Chania, they are chiefly administrative records and inventories of commodities stored in the palaces; no texts have yet emerged that parallel the royal decrees and diplomatic documents of the Near East. What is known is that the Mycenaean palaces employed large workforces of specialized labourers (including slaves) dominated by an administrative hierarchy under a *wa-na-ka*, sometimes assisted by a *ra-wa-ke-ta*. The Pylos tablets reveal that the "kingdom" of Pylos was divided into two provinces, governed by a *da-mo-ko-ro* and a *du-ma*, and that each province was further subdivided into districts under the authority of a *ko-re-te* who was assisted by a *po-ro-ko-re-te*. Nothing is recorded about the relationships that existed between palatial centres, though a recent tablet from Thebes appears to attest the presence of a Lacedaemonian.

Even less is known about the succeeding Dark Age due to the complete absence of literary material prior to the adoption of the Phoenician alphabet in the 8th century BC. Inferences for this period are largely based on archaeological investigation or analysis of institutional forms and social structures in the Homeric epics (though there is considerable debate as to whether Homeric society is in any sense historical and, if so, whether it reflects the social and political conditions of the Dark Age, the 8th century, the 7th century, or an amalgam of each). Scholarly opinion is divided as to whether Dark Age society was predominantly hierarchical or egalitarian and whether the communities of this period were subject to individuals whose authority derived from personal charisma and social standing or – as the Homeric poems and later political theorists suggest – to hereditary monarchies. Consensus remains elusive, though recent interpretations of the archaeological evidence incline towards the view that Dark Age communities were not as small as previously assumed and may have been characterized by a

weak form of ranking, though political leadership was probably an achieved rather than ascribed status.

The political history of Archaic Greece is essentially the history of the polis (plural: poleis), though in western Greece the prevailing form of organization was the *ethnos* – a large territorial entity characterized by scattered settlement and loose "federal" ties between communities, particularly in the religious and military domains. The word polis is conventionally translated as "city state" to indicate its dual status as both (1) an urban centre housing a single, unitary decision-making body whose authority extends over not only the settlement itself but also the surrounding territory (including second-order habitation sites) and (2) a community of citizens, fully enfranchised or not, who are entitled to own property within the territory of the polis and whose citizen status is predicated on either agnatic (patrilineal) descent from a citizen or a grant of citizenship from the central authority. While some possible continuities with features of the Mycenaean states cannot entirely be discounted and although poleis continued to be founded throughout the whole period of Greek antiquity, the crucial era for the formation of this type of organization would appear to be the 8th century BC. Archaeological evidence in particular indicates that this was a time of increasing settlement nucleation – perhaps accompanied by a more sedentary way of life and demographic increase which would itself necessitate a greater division of labour and specialization – as well as of a new preoccupation with defining territoriality through the foundation of sanctuaries in both urban settings and marginal rural areas.

The 8th century also witnessed the commencement of colonization of areas outside the Aegean and a symbiotic relationship has been posited between this and the emergence of the polis. The processes of social exclusion through which the polis was forged may have created a new group of outsiders who decided to form communities overseas, but the immediate imperatives of colonial foundation – settlement planning, allotment of land, and procedures for decision making – probably exerted a feedback effect on the communities of the Greek mainland.

The rise of the polis should not be confused with the advent of democracy (the Athenian democracy hardly predates the reforms of Cleisthenes at the end of the 6th century BC, or in its more familiar "radical" form the measures undertaken by Ephialtes and Pericles in the middle of the 5th century) and ultimate authority in the poleis of the Archaic period invariably rested with the elite. The provisions of the Spartan "Great Rhetra" (conventionally – though not uncontroversially – dated to the mid-7th century BC) imply that deliberation and the right of veto lay with the two kings and their advisory council of 28 elders, drawn from the wealthier families, while the function of the popular assembly was merely to accede to the motions placed before it. A law from the temple of Apollo at Cretan Dreros, dated to 650–600 BC and stipulating that the office of kosmos could not be held by the same individual twice within a ten-year period, makes it clear that the function of early legislation was concerned less with defining rights and privileges within the citizen body as a whole than it was with regulating the distribution of power within the elite classes.

The word demos, which in democracies of the Classical period signified the entire citizen body, is in this period employed to denote those who are not of elite status, and the poetry of Hesiod, Theognis, and Solon testifies to a sharp division between elite and non-elite groups as well as to the growing importance of wealth (as opposed to birth) in recruitment to the governing classes. One of the many grievances which the demos held against the "bribe-devouring lords" who governed them (Hesiod, *Works and Days*, 38–39) appears to have been the fact that there was no clearcut dividing line between poor citizens and slaves: among the social problems that the Athenian statesman Solon had to address in the early 6th century BC was the practice whereby poorer citizens took out loans on the security of their person, risking enslavement in the event of default.

From the 7th century BC onwards certain members of the elite recognized that popular discontent could be mobilized for political ends and appealed to the demos for support against their rivals in establishing tyrannical regimes (the thesis that tyrannies emerged as a result of a sudden radical reorganization of military equipment and tactics – the so-called "hoplite reform" – is less religiously held today). The earliest tyrannies are attested in the area of the Corinthian isthmus: at Corinth itself Cypselus seized power *c.*655 BC; at about the same time Orthagoras gained control at Sicyon; and at Megara Theagenes established a tyranny *c.*640 BC. Towards the end of the 7th century, tyrannies were established at Mytilene on the island of Lesbos and Miletus on the coast of Asia Minor and in the middle of the 6th century Polycrates seized power on the island of Samos. A tyranny is attributed to Pheidon at Argos, though dates for this enigmatic figure range from the 8th to the 6th century BC. About 630 BC Theagenes of Megara assisted his son-in-law Cylon in a coup at Athens, but the attempt was unsuccessful and Athens remained free from tyranny until *c.*546 BC when, on his third attempt, Pisistratus established himself as tyrant. The reason for Cylon's failure and Pisistratus' two failed attempts is probably that the vast and differentiated territory of Attica militated against any unified sentiments of collective consciousness among the Athenian demos (Pisistratus' eventual success was achieved through a mercenary force rather than the support of the demos). Popular support for tyrannical regimes was often shortlived as rival elite claimants also joined in courting the favour of the demos. Alternatively, elite factions might call upon outside help: the Spartan expulsion of Pisistratus' son Hippias in 510 BC was reputedly instigated by the wealthy Athenian family of the Alcmeonidae.

Relationships between poleis in the early Archaic period are characterized by the counteracting tendencies of aggregation and competition and conducted mainly at the level of the elite – the majority of citizens constituted a landbound peasantry whose horizons rarely exceeded the territorial limits of the polis, though specialist craftsmen, merchants, and mercenaries would often seek employment in other (Greek and non-Greek) cities. The elite classes maintained more cosmopolitan networks of support through guest friendships (*xenia*) and intermarriage (*epigamia*). This policy is demonstrated most clearly by the tyrants: guest friendships existed between Pisistratus and Lygdamis of Naxos (Herodotus, 1. 61), between Periander of Corinth and Thrasybulus of Miletus (Herodotus, 1. 2.0), and between Polycrates of Samos and Amasis, pharaoh of Egypt (Herodotus, 2. 182), while intermarriage guaranteed bonds of friendship between Periander and Procles of Epidaurus (Herodotus, 3. 50) and Theagenes and Cylon (Thucydides, 1. 126). The

practice was not, however, limited to the tyrants alone: Isagoras, the Athenian archon (chief magistrate) for 508/07 BC, was a guest friend of the Spartan king Cleomenes (Herodotus, 5. 70); the Athenian Alcmeonidae contracted a guest friendship with King Croesus of Lydia (Herodotus, 6. 125); and among suitors from the most important families of Greece, it was the Alcmeonid Megacles who won the hand of Agariste, daughter of the Sicyonian tyrant Cleisthenes (Herodotus, 6. 130).

Aside from forging bonds of friendship, the elites also competed among themselves to win *kleos* (repute) and *kudos*. Archaeological evidence from Olympia indicates that the origins of the sanctuary date back to the 10th or even 11th century BC, long before the formal institution of the Olympic Games (traditionally dated to 776 BC), and that the sanctuary originally served as an arena for competitive display through the dedication and circulation of prestige goods. Such conspicuous consumption served to assert an individual's status in the eyes of his peers as well as to guarantee his authority in his home community.

In the 6th century BC, however, elite habits came to be increasingly integrated within the more collective framework of the polis. The practice of contracting individual guest friendships was usurped and institutionalized at a civic level by appointing an official *proxenos* ("consul") in another city (a Locrian is already described as a *proxenos* of Corfu on a limestone cenotaph dated to 625–600 BC). New regulations regarding *epigamia* stipulated the communities into which one might marry, and the glory that individuals won in agonistic competitions at the Panhellenic sanctuaries of Olympia, Delphi, Isthmia, and Nemea was now redirected to reflect credit on the victor's polis. Cities, alongside individuals, vied with one another to dedicate expensive offerings and treasury buildings at the most important sanctuaries of Greece. These shared cult places provided a locus for the proclamation of common bonds between Greek cities, but it was those perceived commonalities that provided a defined framework for poleis to publicize not only their parity but also their distinct identities.

Warfare was simply a more violent manifestation of this agonistic spirit which employed shared rules and ritualized norms within which poleis might assert their independent identities. One of the earliest wars of which we hear is the Lelantine War fought between the neighbouring Euboean cities of Eretria and Chalcis, probably towards the beginning of the 7th century BC. Thucydides (1. 15) asserts that the rest of the Hellenic world participated in the conflict through alliances with one of the main protagonists, and isolated notices from Hesiod, Archilochus, Theognis, Herodotus, Plutarch, and Strabo have been ingeniously marshalled to draw a picture of a conflict between two massive trading leagues; in reality, however, it is far from clear that each of the sources refers to the same war and it is more likely that the story of an original conflict between two neighbouring cities was exaggerated over time by a tradition that cast the Lelantine War in similar terms to the Trojan War. Certainly wars in the Archaic period generally involved powerful neighbours – for instance, the mid-6th-century "Battle of the Fetters" between Sparta and Tegea (Herodotus, 1. 66) or the long-running dispute between Argos and Sparta over the Cynourian region of the Peloponnese, which may already have run intermittently for about a century by the time of the mid-6th century when each side put forward 300 picked men to fight a "Battle of Champions" (Herodotus, 1. 82). Warfare in this period required the preselection of a time and place (generally a level plain) at which two armies of citizen hoplites (heavy infantry) confronted one another; in conforming to prescribed rules and rites both as preliminaries to the battle and in the conduct of the battle itself, hoplite armies played out a regulated (if lethal) game to determine which city was the victor.

Polis autonomy was also guaranteed within the leagues and amphictionies ("dwellers around") that are said to have emerged during the Archaic period. Though its origins are hazy, one of the earliest is said to have been the amphictiony of central Greek states, organized around the sanctuary of Demeter at Anthela, which is thought to have been the predecessor of the Delphic Amphictiony charged with administering the sanctuary of Pythian Apollo. Strabo (8. 6. 14) refers to a Calaurian amphictiony, centred on the sanctuary of Poseidon on Calauria (modern Poros) and including the cities of Hermione, Epidaurus, Aegina, Athens, Prasiae, Nauplia, Orchomenus, and, later, Sparta and Argos, though there is no independent testimony for this amphictiony prior to the Hellenistic period. By the beginning of the 6th century, if not earlier, six Dorian cities in Asia Minor had organized themselves into a league (the Dorian Hexapolis) centred on the sanctuary of Apollo Triopios near Cnidus, while 12 Ionian cities constituted a similar federation (the Ionian Dodecapolis) focused on the sanctuary of Poseidon Heliconius at Mycale. Towards the end of the 6th century BC Sparta created a new hegemonic Peloponnesian league in which allies were required to follow wherever Sparta led by land or sea.

It is likely that an increase in the incidence of hostilities between poleis, together with the need to field larger citizen armies, contributed to growing calls for a broader base of political inclusion. An inscription from the island of Chios attests to a "popular council" (as opposed to an aristocratic council) by 575–550 BC, and a few decades earlier the Athenian Solon is said to have established a new probouleutic council (*boule*) of 400 which coexisted with the aristocratic council of the Areopagus, though it is unclear exactly how powerful this council was prior to its reconstitution as the Council of 500 under Cleisthenes in the last decade of the 6th century and the reorganization of the Areopagus under Ephialtes in the 460s. Solon also established the right of appeal to popular jury courts and formalized the admission of the lowest property class of Athenian citizens (the *thetes*) to the popular assembly, though the aristocracy continued to exert considerable influence – particularly in rural areas – until Cleisthenes engineered a radical reorganization of the citizen body into demes distributed among ten new tribes.

The rise of Lydia and especially Persia in the 6th century BC had profound consequences for the cities of eastern Greece. By 546 the cities of Colophon, Magnesia, Smyrna, and Ephesus had fallen to the Lydians, and following the defeat of Croesus of Lydia the Greek cities of Asia Minor became the possession of the Persian king Cyrus the Great. In about 520 Cyrus' successor Darius I assessed the cities for tribute within the new satrapies that he had established and launched attacks on the islands of the Aegean as well as advancing into Thrace, where he accepted the submission of the Macedonian king Amyntas *c.*500 BC. In 499 the Ionians initiated their ill-fated revolt from Persian dominion, and Herodotus (5. 97) argues that it was the support

afforded the Ionian rebels by Athens and Eretria on this occasion that provoked Darius' successful assault of Eretria and unsuccessful landing at Marathon in 490. The Athenian victory against overwhelming forces at Marathon served as a key founding-myth of Athenian identity throughout the 5th and 4th centuries BC.

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See also **Archaic Period; City State; Colonization; Dark Age; Mycenaeans; Sanctuaries; Tyranny; Warfare**

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POLITICAL HISTORY 490–323 BC

The immediate effect of the Athenian victory at Marathon was to prompt Darius' son Xerxes to launch a new and greater invasion in 480 BC. His force, incorporating various Greek contingents including the Thebans, was repulsed by the Greeks, under the hegemony of the Spartans but without the Argives, in the battles of Artemisium, Salamis (both 480), Plataea, and Mycale (both 479). These victories, and the glorious defeat at Thermopylae (where the fighting on land coincided with the naval battle at Artemisium), were of utmost importance in the fostering of Greek self-belief and were commemorated in verse, prose, art, and architecture for centuries afterwards. But they are also indicative of two of the major themes of Greek history in the 5th and 4th centuries BC: the persistent external threat posed to the Greeks by the Persian empire, and the constant internal, interstate rivalries which served to undermine Greek political stability.

Athens was the first state to assert this new-found confidence, when the Spartans withdrew from the command of the Greek forces in 487. The Spartan king Pausanias captured Byzantium, but his arrogant behaviour led to his recall to Sparta. A new alliance was formed, comprising the Ionian states, most of the Aegean islands, and cities of the Hellespont and Propontis regions, with a base on Apollo's island of Delos (hence the modern tide "Delian League") and under the leadership of Athens, which claimed to be the Ionians' mother city. Delos housed the treasury of the league, to which most of the members paid an annual tribute (others, most notably Chios, Lesbos, and Samos, provided ships). The history of the *pentekontaetia* (roughly the 50-year period 480–430 BC) is dominated by the Athenians' increasing hold on the Delian League and its transformation into an Athenian empire, and the largely ineffectual opposition to Athens by the Spartans and their allies (loosely termed the Peloponnesian League). Although the early campaigns of the league were aimed at dislodging the Persians from western Asia Minor, culminating in the Athenian general Cimon's victory at the river Eurymedon (466), almost from the start Athenian ambitions were barely disguised. Cimon's coercion of Skyros (*c.*475) was followed by that of Carystus in Euboea (*c.*472), Naxos was forcibly prevented from seceding (*c.*467), and Thasos was harshly dealt with after revolting in protest against Athenian interference in Thasos' mainland possessions (465). Athenian confidence was further fuelled by the development of the democracy. Cleisthenes' democratic reforms of 508/07 BC were buttressed by the rising importance of the board of ten elected generals at the expense of the archons, and by the reforms of Ephialtes in 462, in which the powers of the Areopagus were divided between the assembly, the council, and the law courts. Soon after, Pericles introduced pay for the jurors and members of the council, and in 451 he passed a law which restricted citizenship to those who were the legitimate sons of an Athenian mother as well as father.

The Spartans, meanwhile, were unable to check the expansion of Athens. Although the threat of Argos, Sparta's main rival in the Peloponnese, had been crushed in 494, internal problems with the Arcadians were followed by a serious helot revolt after an earthquake *c.*465. Cimon led a force of Athenians to assist the Spartans, but in his absence Ephialtes passed his reforms and Cimon was dismissed. After subduing the revolt, Sparta finally took action to secure its interests in central Greece, but Athens' main opponents during the First Peloponnesian War (*c.*461–446) were the Corinthians. Corinthian aggression led Megara to leave the Peloponnesian League and side with Athens, and Corinth suffered heavy losses in the early stages of the war. Athenian power now reached its peak in Greece and the Aegean under the leadership of Pericles: Aegina was forced into the league (458), and after an initial defeat at Tanagra had been reversed at Oenophyta, Boeotia came under Athenian control (457–446). The Athenians were confident enough to pursue war on two fronts, dispatching an expedition to Cyprus in 460 which was sent on to Egypt to support Inarus' revolt against Persia, but this force was destroyed in 454. The league treasury was subsequently transferred from Delos to Athens, and the Peace of Callias was concluded with the Persians in 450, ending open hostilities until 413 (it is not quite certain that a formal peace was made). Back in Greece, the war ended in 446 as Boeotia revolted and the Athenians were defeated at Coronea. Megara returned to the Spartan fold and was used as the base for a Spartan invasion of Attica, and Euboea also rebelled. The Thirty Years' Peace was concluded, by which Athens lost control of Boeotia (whose major cities formed the Boeotian Confederacy) and other recent acquisitions, and which satisfied the Corinthians, who prevented Peloponnesian intervention against the Athenians when Samos revolted in 440. The peace held until 431, despite continued Athenian expansionism (e.g. the establishment in 437–436 of the strategically important colony of Amphipolis on the east bank of the river Strymon) and increasing oppression of the allies, especially by means of cleruchies (settlements on conquered territory). But in Thucydides' view war was inevitable, and in his opinion Spartan fear of the growth of Athenian power was the truest cause of the outbreak of the

main Peloponnesian War (431–404). It was precipitated by a series of grievances among Sparta's allies, including the Athenian alliance with Corfu against Corinth (433), the Megarian Decree (?432), which restricted access to the Athenian agora and to harbours of the Athenian empire, and Aeginetan complaints that their autonomy under the terms of the peace had been infringed. The Spartans and the Peloponnesians now attempted to liberate Greece from Athenian domination, but the first ten years (the Archidamian War) resulted in stalemate and the Peace of Nicias (421). On the resumption of hostilities Athens suffered various setbacks, including the disastrous failure of the great expedition to Sicily (415–413), the subsequent secessions of Chios, Miletus, Thasos, and Euboea, the renewal of Persian interference in Greek affairs (413) and their commitment to the Spartans (407), and the temporary overthrow of the democracy by the oligarchy of the Four Hundred (411). Nevertheless, the fighting continued (the Ionian War) with some notable Athenian successes until they were finally defeated at Aegospotami (405). Persian money was no small influence here. The city itself fell in 404, and the Spartans installed the shortlived and hated regime of the Thirty Tyrants (404–403).

Sparta's victory in the Peloponnesian War, far from curtailing hostilities, was only the beginning of a series of struggles in the 4th century, as various states in turn asserted their claim to supremacy and were overthrown. The victorious Spartan general, Lysander, quickly made himself and his country unpopular with his policy of establishing oligarchic decarchies in numerous cities, and fear of Sparta's expansionist policies in Asia Minor, central and northern Greece, and the west led to the Corinthian War (395–386). Athens, with a restored but less radical democracy, had recovered remarkably from defeat and now joined in an anti-Spartan alliance with Thebes (which had gained control of the Boeotian Confederacy during the Peloponnesian War, but had fallen out with Sparta and received Athenian democratic exiles during the rule of the tyrants), Corinth (whose relations with Sparta had also deteriorated in 404 when the Spartans refused to destroy the defeated Athens), Argos (Sparta's old enemy), and Persia (reversing the former alliance). The Athenian Conon led a Persian-sponsored fleet to victory at Cnidus (394), but despite much fighting around Corinth the allies were unable to inflict a fatal reverse on the Spartans and the war was ended by the King's Peace. This treaty, negotiated by the Spartan Antalcidas and imposed by King Artaxerxes II, guaranteed the Greeks' autonomy, but in exchange for Persian control of the cities of Asia, Clazomenae, and Cyprus. The peace had the additional effect of strengthening Sparta's position in central and northern Greece, enabling the coercion of Olynthus and dissolution of the Chalcidian Confederacy. The Boeotian Confederacy was also dismantled, but the Spartans, whose king Agesilaus II was implacably hostile to Thebes, went too far in occupying the Theban acropolis, the Cadmea (382), which the Athenians helped liberate in 379. Thebes subsequently joined the Second Athenian Confederacy (378), which was formed to ensure the Spartans' compliance with the terms of the King's Peace. Athens was careful not to repeat the mistakes of the 5th-century empire, guaranteeing no internal political interference or tribute, and membership grew rapidly in the period 378–373. But so too did Theban power, as it re-established the Boeotian Confederacy under Theban control, and the Spartans' military dominance was ended for good at the Battle of Leuctra (371). A decline in the number of full Spartan citizens (*homoioi*) had set in during the 5th century, as changes in the pattern of landholding deprived many Spartans of the ability to contribute to the common messes on which their citizenship depended. Now Athens and Sparta were forced to forget past differences and unite in opposition to Thebes, which tried to supplant Athens at sea and to undermine Sparta's position in the Peloponnese by the foundation of Megalopolis in Arcadia (*c.*370–367) and Messene in Messenia (369). While the Peloponnesian League finally collapsed (366), the Thebans, led by Epaminondas and Pelopidas, enjoyed a brief period of hegemony, which ended with Epaminondas' death at the Battle of Mantinea (362).

One other major player in the 370s was Jason, the tyrant of Pherae in Thessaly, who made an alliance with Thebes after 375, captured Pharsalus (375/4), and became *tagos* (supreme magistrate of Thessaly). His unification of Thessaly provoked Phocis (373–371), but he went on to gain control of Perrhaebia and was planning a Persian invasion when he was assassinated (370).

Athens, meanwhile, was beginning to return to its old ways. Attempts to recover Amphipolis (from 368), which had surrendered to the Spartan general Brasidas in 424 and had since remained independent, the installation of cleruchies, especially that in Samos (366), and increasing political and judicial interference in confederate states made the Second Athenian Confederacy unpopular; and eventually Byzantium, Chios, and Rhodes rebelled in the Social War (357–355). Athens and Sparta also became involved in the Third Sacred War, backing Phocis against the Delphic amphictiony (355). All the time a new threat to Greek independence was growing, as Philip II of Macedon (ruled 359–336) first consolidated his position and then began expanding his kingdom. Amphipolis was captured in 357 while Athens was involved in the Social War, other northern Greek states were annexed, and Philip secured Thessaly in 352. Athens finally began to wake up to the threat, and opposition to Philip was promoted by Demosthenes. It was too late, however, to save Olynthus (349–348), and without Greek support the Athenians were forced to negotiate the Peace of Philocrates (346). Before ratifying the treaty Philip accepted the invitation of the Delphic amphictiony to lead resistance to Phocis, which was destroyed. Further expansion in Illyria and Thrace, and the besieging of Perinthus and Byzantium, delayed the final attack on Greece, which culminated in the destruction of the Theban, Corinthian, and Athenian forces at Chaeronea (338). This was the end of Greek political independence: the League of Corinth was formed the next summer (337) with a common peace which provided for the autonomy of member states, prohibited constitutional change, and put Philip at the head of the governing council (*synedrion*). At the foundation meeting Philip announced his plan to invade Persia, but he was assassinated before he could carry it out (336).

Philip's successor was Alexander III the Great, who accomplished his father's plan in a series of brilliant campaigns (334–323). Before departing on his great expedition Alexander made a show of strength in southern Greece, and when Thebes revolted during Alexander's campaign on the Danube, he returned to destroy the city and enslave its inhabitants (335). Alexander left Greece under the control of Antipater, who crushed a Spartan rebellion led by Agis III, supported by Elis,

Tegea, and the Achaean Confederacy (331). Athens refused to support Agis and remained subdued in the 330s and 320s, its leading politician being Lycurgus. He was responsible for reestablishing the city's finances, increasing the navy, and a rebuilding programme, which included an arsenal, docks, and the theatre of Dionysus. Alexander's death sparked the struggles of the successors and in the Greek sphere the Lamian War (323–322), in which a coalition led by the Athenians and Aetolians was almost successful. But the crushing defeat at Crannon resulted in the suppression of the Athenian democracy by Antipater, which was temporarily restored in 318 by Polyperchon before the tyrannical rule of Demetrius of Phalerum (318–307).

The momentous struggles of mainland and eastern Greece in the 5th and 4th centuries should not be allowed to overshadow the events in the western Greek world, in Sicily and southern Italy. Here too the Greek communities faced the double threat of external powers and internal rivalries. Those in Italy had local, indigenous rivals (e.g. the Messapians massacred the Greek Tarentines *c.*470), as well as the major power of the Etruscans; while those in Sicily faced the threat of the Carthaginians. The main western Greek state was Syracuse, whose power rose greatly under Gelon, the tyrant of Gela, who seized Syracuse in 485 (his brother Hieron becoming tyrant of Gela). He was prevented from helping the mainland Greeks in 480 by the Carthaginian Hamilcar's invasion of Sicily, but won a crushing victory at Himera. Gelon was succeeded in 478/77 by Hieron, who defeated the Etruscans in a naval battle with the help of Cumae (474). Democracy was restored after Hieron's death (466), but Syracuse became involved in wars with another leading Sicilian state, Acragas, and with the Sicels, who under Ducetius defeated the joint forces of Syracuse and Acragas in 451. Ducetius himself was in turn defeated by the Syracusans in 450 and exiled, but returned to found the colony of Caleacte, which resulted in another war between Syracuse and Acragas. Syracusan victory was later followed by successes against Athens (427–424,415–413), but further interference by the Carthaginians resulted in the destruction of Himera and other cities (409). The democracy was overthrown in 406 by Dionysius I, who fought four wars against the Carthaginians and extended Syracusan power over most of Sicily and much of southern Italy. He died in 367 and his successor, his eldest son Dionysius II, was opposed by Dion (356) in a civil war which was ended by the intervention of the Corinthian Timoleon on behalf of exiled opponents of Dionysius. Timoleon put down tyranny in Sicily, defeated the Carthaginians (341), and re-established stable government, but after his retirement (*c.*336) an oligarchic government was installed until Agathocles became tyrant (317) and once again subdued most of Sicily.

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See also **Classical Period; Delian League; Democracy; Macedonia; Pelopponesian War; Persian Wars; Sicily**

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POLITICAL HISTORY 323–31 BC

The chaos resulting from the unexpected death of Alexander III the Great in Babylon in 323 BC lasted for several decades before the establishment of the three major Hellenistic Greek kingdoms which form the focus of the history of the next three centuries. The kingship fell jointly to the son and half-brother of Alexander, the satrapal appointments were rearranged, and the successors (the name traditionally used for Alexander's generals) fought each other and jockeyed for positions of ever greater power. Some were killed early on in this power struggle, and successive regents of the two kings died. The kings were returned to mainland Greece (which in effect signalled the end of Alexander's Asian empire) where they became pawns in the hands of those seeking to establish mastery over Macedonia and Greece, and the remaining successors continued to fight each other in Asia Minor.

It was probably inevitable that both kings would be murdered, as also were eventually all the immediate members of Alexander the Great's family, thereby extinguishing the Argead dynasty of kings of Macedonia (to which Alexander and his father Philip II belonged). In 306–305 BC the surviving successors assumed the title of "king", thus acknowledging finally that Alexander's kingdom was now split among several rulers even if they did not yet have fixed geographical kingdoms. A major landmark of this period was the Battle of Ipsus (in Phrygia) in 301 BC, in which the Macedonian general Antigonus the One-Eyed was defeated and killed by a coalition of the other successors, who divided the spoils of the territories he controlled among themselves.

Antigonus' ambitious son Demetrius (known as Poliorcetes, "the Besieger", because of his siege of Rhodes in 305/04 BC) unsuccessfully tried to re-establish his father's Asian empire while also intervening in Greece. It was only when his son Antigonus Gonatas securely established himself on the throne

of Macedon in 277/76 BC that the Antigonid dynasty of kings of Macedon was created.

Third-century Macedonian history is characterized by warfare on the northwestern borders with Illyria and by attempts to control mainland Greece by both diplomacy and guile. Judging from the low numbers of Macedonian troops recorded in various encounters, it appears that the country suffered the effects of severe depopulation as a result of Alexander the Great's removal of some 40,000 men in their prime in the 4th century BC. Finally, in 229 BC, the accession to the throne of the boy king Philip V under the care of a regent left the country potentially vulnerable. When he assumed control in his own name in 221, Philip unwisely thought that he could prevail against the growing power of Rome, whose suspicions about Greece were becoming ever stronger. Three Macedonian Wars were fought, leading to Philip's defeat at Cynoscephalae in 197, and to his son Perseus' even more catastrophic defeat at Pydna in 168. After Pydna, Macedonia was ruthlessly sacked and the kingship abolished. The region became a full province of Rome in 146 BC.

Mainland Greece suffered various vicissitudes during this period. Athens, usually under Macedonian control, was constantly split between pro- and anti-Macedonian factions and experienced severe internal political stasis. A major revolt against Macedonia is attested in 287 BC, and the Chremonidean War in the 260s signalled the final unsuccessful attempt of Athens (this time allied to Sparta) to overthrow the Macedonian yoke. A Macedonian garrison was imposed, Macedonian officers were installed in Athenian political posts, and the activity of the Assembly was curtailed. This was a severe humiliation to a city which was the birthplace of Greek democracy. Athens became politically unimportant after this period, but remained culturally pre-eminent, even if eclipsed by the new Greek city Alexandria in Egypt. During the next centuries many notable figures of both Greek and Roman origin came to study in Athenian philosophical and rhetorical schools.

During this period politics in the Peloponnese revolved around the Achaean League (a powerful federation of Peloponnesian cities), a stubbornly independent Sparta, the interference of both Macedonia and Rome, and the attempts of the league to manipulate all parties to its advantage. Despite some flirtations with social and economic reform in the 3rd century, Sparta was finally forcibly united with the Achaean League in 192 BC, which was in turn defeated by Rome in 146 BC. The Greek city of Corinth was sacked with a savagery which shocked the Greek world. The region was first incorporated into the Roman province of Macedonia but became the separate province of Achaea under the Roman empire.

Events in mainland Greece in the Hellenistic period arguably take second place to events in the new Greek kingdoms established in Asia after the wars of the successors. Ptolemy, a Macedonian general of Alexander the Great, received the satrapy of Egypt after Alexander's death and developed it into a wealthy and powerful kingdom to be ruled by himself and his descendants. Being content with Egypt, Ptolemy wisely avoided any temptation to extend his territory at the expense of the other successors, but he displayed a defensive strategy by establishing control over nearby Cyprus and Cyrenaica (a large region in modern Libya). His capital was the coastal city of Alexandria in the north of the Nile delta, founded by Alexander during his visit to Egypt in 331 BC. Alexandria – superbly situated for east–west trade – quickly became the jewel of the Mediterranean, taking over from Athens in cultural terms, and grew into a great city as a result of encouraged immigration from the rest of the Greek world.

Third-century Ptolemaic Egypt is characterized by good kings, relatively stable government, and enormous prosperity. Although there were brief interventions in mainland Greece, Egypt's major foreign problem was an ongoing dispute with the Seleucids (see below) over the area called Coele (in Greek "Hollow") Syria, the region comprising much of the modern Middle East. A series of Syrian wars were fought during the 3rd and 2nd centuries BC, with varying outcomes. By the middle of the 3rd century Ptolemy II had developed the largest and most powerful naval fleet ever known in the ancient Greek world (although the navy did experience a few defeats in battle), and Egypt became the protector of the Mediterranean, securing the safety of trade and travel against the threat of pirates. At the end of the 3rd century the kingdom was shaken by a native revolt in which Nubia (southern Egypt) seceded for a time.

In the 2nd century the growing interest of Rome in eastern Greek politics was combined with weak Ptolemaic kings and continued Syrian wars. The Ptolemaic habit of brother–sister marriage led to even worse cases of incest, resulting in several multiply interrelated claimants to the throne at various periods. Rivals were murdered, princesses were married off to foreign kings to seal temporary alliances, and the support of Syria and Rome was sought by different factions. The last Ptolemaic queen was Cleopatra VII, descended from an illegitimate royal line. Julius Caesar came to Egypt in the mid-1st century BC in the course of his war with Pompey the Great, and fought on Cleopatra's behalf a war against her brother-husband (the so-called "Alexandrian War"). Their love affair resulted in the birth of a son. Cleopatra turned to Mark Antony after Caesar's assassination, and their even more famous love affair ended with a naval defeat at the Battle of Actium in 31 BC at the hands of Octavian (later the emperor Augustus). Both committed suicide, the Ptolemaic dynasty ended, and Greek Egypt became a province of Rome.

The Seleucid empire was established by Seleucus, a Macedonian general of Alexander the Great who had received the satrapy of Babylon during the various divisions of Alexander's empire. He was eventually confirmed as ruler also of the territories east of the Euphrates – the huge Asian empire of Alexander which included modern Iran, Iraq, Afghanistan, and Pakistan as far as India. Seleucid control over much of this vast territory was nominal, with several royal expeditions during the next three centuries in not always successful attempts to reconquer or pacify various regions. After the battle of Ipsus in 301 Seleucus received the area of greater Syria (the northern part of the Middle East, not to be confused with the boundaries of the modern state of Syria), and this became the heartland of his empire, now with an outlet to the Mediterranean. A new capital city was founded at Antioch on the Orontes river (the city of Antakya in modern Turkey), with a seaport on the coast at Seleuceia in Pieria. Antioch became one of the greatest and most important Greek cities of later antiquity. Seleucus also encouraged Greeks from all over the Mediterranean to inhabit his kingdom, and the early Seleucid kings were enthusiastic city founders, founding several cities throughout their empire in

which Greek urban lifestyle, institutions, culture, and language were established and continued for centuries.

During the 3rd and 2nd centuries the Seleucids fought several wars against the Ptolemies for the control of adjoining Coele Syria (see above), and suffered dynastic disputes and revolts by brothers, cousins, and eastern satraps. Expansion into Asia Minor came up against the growing power of the Attalid kingdom of Pergamum, and in the 2nd century Rome's unfavourable attention focused on king Antiochus III the Great because of his troublemaking alliances with other Hellenistic kings and forays into mainland Greece. In 191 BC Roman forces defeated Antiochus at the Thermopylae pass in central Greece (the site of the famous battle of the Persian War in the 5th century BC). He refused harsh Roman demands and an ultimatum that he withdraw to Syria. Risking all in battle, he was decisively defeated by a Roman army at the Battle of Magnesia in 189 BC. The resulting Peace of Apamea in 188 meant that the Seleucid empire was no longer a Mediterranean power, and successful revolts in the eastern territories decreased the extent of its influence.

Later Seleucid history is dominated by catastrophic dynastic disputes and the rise of pretenders to the throne which led to constant civil wars (much of the conflict was aided and abetted by Ptolemaic kings who intervened in devious ways in order to weaken their main rivals). The situation deteriorated to the extent that the Syrian people offered the throne to the king of Armenia in 83 BC. After appealing to Rome, the last Seleucid king, Antiochus XIII, was temporarily restored to the throne in Antioch under Roman protection in 69 BC, but in 64 BC Syria was made a Roman province.

The rise of the kingdom of Pergamum also lies in the age of Alexander's successors. Philetaerus, of mixed Macedonian and Paphlagonian background, is first seen in the entourage of Antigonus the One-Eyed, then in that of Lysimachus of Thrace, and finally in that of Seleucus I. He had been put in charge of the stronghold of Pergamum, a city in northwest Asia Minor (now Bergama in modern Turkey), as well as a substantial treasury. The descendants of Philetaerus gradually established their independence from the Seleucids, and deprived the Seleucid empire of large areas of Asia Minor by cunningly intervening in Seleucid civil wars. Attalus (after whom the Attalid kingdom of Pergamum is named) was the first ruler to take the title of king in the late 230s BC, as a result of his military victories over Celtic mercenaries (called Galatians) in Seleucid employ. By means of lavish sculpted dedications, Attalus depicted his victories as important achievements, and himself as the champion of Greek freedom against a renewed barbarian threat. The Attalids early on were allies of Rome against Philip V of Macedon, and established the beginnings of an overseas empire in the Greek islands of Aegina, Andros, and Euboea.

Attalus I's sons continued as Rome's allies against various Greek foes, and Pergamum was rewarded with vast grants of territory in the reassignment of territory in the Peace of Apamea in 188 BC. After the Galatians were finally decisively defeated, Pergamum became the most powerful kingdom in Asia Minor, and extensive building operations on the acropolis transformed Pergamum into a magnificent Greek city. A library of Greek literature rivalled those of Athens and Alexandria (some scholars say that parchment, called in Greek *pergamena* after the city, was invented there to remove dependence on Egyptian papyrus), and monuments proclaiming in mythological terms the Attalids as the defenders of Hellenism and civilization against barbarism were erected. These are among the greatest creations of Hellenistic art. In order to reinforce their place in the Hellenic world, the Attalids also dedicated lavish buildings at Delos, Delphi, and Athens (the stoa of Attalus II in the Athenian Agora is a famous example of their beneficence towards Greek cities).

The Attalid dynasty came to an end in 133 BC upon the death of its last king, Attalus III, who for uncertain reasons bequeathed his kingdom to Rome, thereby giving Rome a free rein to intervene in Greek Asia Minor.

During the Hellenistic period the Greek cities of Asia Minor and the islands suffered different fates under the shifting control of various Hellenistic monarchs. The Dodecanesian island of Rhodes maintained its democratic independence for some time despite attempts by the kings to control it, and it gained a position of considerable power and prestige in the Greek world at this period. Its position on the east–west trade routes and the facilities provided by five harbours in the capital guaranteed considerable economic prosperity. Bravely resisting a year-long siege by Demetrius Poliorcetes against immense odds in 305/04 BC, Rhodes built up its navy and gradually replaced the Ptolemies as protector of Greek cities in the Aegean against marauding pirates. Friendship with Rome ensured rewards for Rhodes in the Peace of Apamea in 188 BC, and it was granted extensive territory on the mainland of Asia Minor. The democratic system of government on Rhodes allowed for the development of anti-Roman factions, however, and Rhodes was punished for its support of Macedonia in the Third Macedonian War. It was forced into an unequal alliance with Rome in 164 BC, and thereafter ceased to be an independent political power, although it remained a prosperous and highly cultured city.

The Hellenistic age saw the expansion of Greeks and the Greek way of life into Asia Minor, the Middle East, Egypt, Iraq, Iran, Afghanistan, and Pakistan as far as India. Some settlements were not as successful and long-lasting as others, depending upon the fortunes of the Hellenistic empires, but Greeks and the Greek language lasted in these areas throughout the Roman empire until it phased into the world of Byzantine Greece. It could be maintained that the Hellenistic period had a more cosmopolitan Greek culture than that of the parochial city-states in the Classical period. Unfortunately, the Greek world was ultimately unable to resist the power of Rome in political terms, but, far from extinguishing Greek culture, Rome itself became captivated by Greek scholarship, philosophy, and literature.

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See also **Antigonids; Attalids; Hellenistic Period; Ptolemies; Rhodes; Seleucids**

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POLITICAL HISTORY 31 BC–AD 330

Many discussions of the history of Roman Greece begin with the famous line from Horace: "Graecia capta ferum victorem cepit" ("Greece, the captive, took her savage victor captive", *Epistulae*, 2. 1. 156). It is true that Greek ideals and language captured and dominated the eastern Mediterranean world, but politically Greece became part of the Roman sphere of influence long before the triumphs of Augustus and the poems of Horace. As early as 229 BC the Romans had established protectorates over Greek towns, such as Corcyra, Apollonia, Dyrrachium, and Issa, and in the mid-2nd century BC the Romans arrived to stay in the eastern Mediterranean region. In 146 BC the Romans, led by L. Mummius, destroyed the Achaeans near Corinth. Corinth was razed, its treasures were shipped to Rome, men were massacred, and other inhabitants were sold into slavery. The Achaean League was dissolved, and Greece ultimately became the site of much bitter Roman warfare throughout the 1st century BC. The Civil Wars brought Pompey and Caesar and then Octavian and Mark Antony to Greece, where the combatants depended upon men and material aid from the Greeks, putting significant psychological and economic burdens on the population.

Once the east was conquered, the Romans needed to manage their new territories. The organization of political control in Greece was complicated by Roman respect for Greek culture and traditions, so that the province's administrative status underwent several changes throughout the centuries of Roman rule. Shortly after the Battle of Actium (31 BC) Octavian created the new province of Achaea (roughly the area of modern Greece without Crete, Macedonia, and Thessaly). The idea of a unified Greece rather than politically independent city states took root in this era, even though parts of what we now consider Greece remained separate. Epirus was eventually (though temporarily) made into a separate province as well. The province of Achaea was at first under the control of the Senate (i.e. "proconsular"), but both Achaea and Macedonia were, according to Tacitus (*Annales*, 1. 76), officially turned over to the emperor in AD 15. After AD 44 "proconsul" and "praeses" are both used to describe the governor of Achaea, and the province seems to have, de facto, reverted to proconsular role. The Greeks briefly enjoyed some independence under a grant from Nero. At the Isthmian Games in AD 66/67 he declared Achaea free, though this status was overturned by Vespasian only a few years later. Achaea was formally made proconsular again in either Diocletian's or, more likely, Constantine's reign, after which the governors of Achaea are known only as proconsuls or consuls until they disappear from the record in the 5th century AD.

After the conquest the Hellenistic leagues endured (at least 12 are known), but they were of little bureaucratic importance. Instead, the Greek provinces were ruled through their well-established cities where small groups of local elites played important roles as Roman managers and representatives, and ran the day-to-day provincial business. Among the most important

duties of the cities and their managers was the collection of imperial revenues. It was likely that as early as the reign of Augustus (as Octavian was styled from 27 BC onwards) regular taxation was levied. Both a "head tax" (*tributum capitis*) and a "land tax" (*tributum soli*) are attested under the Principate. Other levies included customs and port taxes, sales taxes, and special levies in times of need. Though statistically relatively low (probably less than 10 per cent), taxation was despised by the provincials and felt to be oppressive, and may well have been devastating to subsistence farmers and other poorer provincials. Not all cities, however, were subject to regular taxation and control by the provincial governor. Pliny (*Epistles*, 8. 24. 2–3) states that the cities most revered for their Classical history were granted freedom and immunity from levies (these included Amphissa, Athens, Corinth, Delphi, Elateia, Pallanteion, and Sparta). But even these cities were sometimes asked to provide contributions from a sense of "friendliness" to the Romans. Strabo (*Geography*, 8. 5. 5) notes that the Spartans "were held in particular honour, and remained free, contributing to Rome nothing else but friendly services [*philikon leitourgion*]". Of particular importance to the economic health of Greece, however, is the crucial fact that, whether regular or sporadic, resources were drained away from Greece into the coffers of the larger empire.

In addition to any economic burdens, the Greeks experienced a mixed blessing from their location at the centre of the empire. Technically, Achaea was an unarmed province with little military presence, so the influence of the empire may often have been a degree less obvious and oppressive in Greece than on the frontiers. Only small contingents of soldiers, rather than significant garrisons, were found in the territory during the early empire. On the other hand, the economic stimulation that the frontier provinces experienced was missing in Greece, where insulation brought a measure of economic stagnation.

For the most part Greek citizens and cities were unmolested and enjoyed the fruits of the *pax Romana*, but there were examples of violent strategies in the imposition of early imperial control. The arrival of the Romans sometimes meant territorial and demographic manipulation. Particularly in the early years of Roman control under Caesar and Augustus, land was taken and redistributed to show pleasure or displeasure with one city over another. These were considered the rights of the victor over the vanquished. Cities and colonies were founded at will. Corinth, for example, was rebuilt, colonized, and grew under the support of Caesar and then Augustus. Augustus also founded Nicopolis in Epirus, and Dium and Cassandreia in Macedonia, while Caesar was known to have created the city of Patras in Achaea and possibly Dyme nearby. Augustus not only manipulated territories, he moved people. Men were transferred, for instance, into Patras where the emperor "united them with the Achaeans also from Rhyope, which town he razed to the ground" (Pausanias, 7. 18. 7).

Recent archaeological and historical work supports ancient claims, such as those of Pausanias, that there was significant movement of populations and realignment of states under the emperors. Results from archaeological survey in Aetolia show a clear pattern of site abandonment in the Roman era which reflects the claims of Pausanias (7. 18. 8–9) that the province was "laid waste" by the emperor Augustus. Epirus, too, was depopulated – so much so that Strabo claims all remaining Epirots in Augustus' time would fit into a single city (7. 7. 6).

Over the course of the 1st and 2nd centuries AD in Greece, as elsewhere, there was a trend towards larger, but fewer, administrative centres such as Corinth, where the provincial governor and his staff were based. Corinth itself did not formally control other Achaean cities, or even mediate between them and the Romans, but it did show a particularly close connection to Rome. Corinthian coinage was modelled on Roman, its pottery showed clear western influences, and Corinth was the site of one the earliest overseas capitolia (though its precise location is still disputed). Clear benefits of empire also accrued to regions outside Corinth. As is well known, one way to emphasize one's political power and prestige was through patronage. The emperor Augustus began a long-imitated trend when he made Greece the beneficiary of such largesse. He continued to rebuild Corinth, which probably became the provincial capital at that time (and which remained Latin-speaking until the reign of Hadrian). Roman Messenia also shows signs of growing prosperity with the coming of empire. Pausanias (4. 31. 5–33. 2) lists numerous Roman-period structures, both civic and religious, which testify to an affluent way of life.

Many Roman emperors evinced a personal interest in Greek culture and history (sometimes, of course, this meant despoiling Greece of its art and antiquities). Nero, for example, was a devoted philhellene. He spoke Greek, attempted to cut a channel through the isthmus of Corinth (to improve communications and trade routes), became an Athenian archon, and was initiated into the mysteries of Demeter. Imperial dedications to Greece could be substantial, including buildings, roads, and other physical manifestations of their concern for Achaea and their own prestige. Trajan had built the Library of Pantaenus in Athens. Hadrian supported numerous projects including buildings at Delphi, many structures in Athens – creating a "New Athens" in the process – as well as stoas, temples, aqueducts, bridges, and baths throughout Achaea. In AD 131/32 Hadrian founded the "Panhellenion", a largely cultural organization of Greek cities (from Greece, Asia Minor, and north Africa) centred in Athens. The respect for Greek culture supported by the creation of this organization lasted well into the 3rd century AD. Throughout these years the Greeks kept their language, culture, and traditions, and continued to maintain control over their cities, which may help explain why, for the most part, the Greeks were loyal to Rome.

The late 2nd and 3rd centuries AD brought unwelcome changes to the Roman world as a whole. Civil wars, economic woes, migrations, and invasions from the north characterize this era in Roman history. Revolts erupted periodically in the 2nd century AD, including at least one in Greece: A small abortive rebellion occurred under the relatively benevolent rule of Antoninus Pius. The chaotic 3rd century AD brought civil wars and extensive Gothic raids to the Balkans. Greek territories were not immune. The restless northern peoples were no longer stopped at the borders of the empire after the death of Severus Alexander (AD 235). Thrace suffered the first assaults from Gothic invaders and related tribes. The emperor Decius was eventually killed by these invaders, which led to further raids and a civil war. The Danube and Rhine regions were the locations of most of this raiding activity, but in AD 254 raiders made their way as far south as Thessolonica. Many parts of Greece, especially

coastal areas such as Athens, were severely damaged by these incursions. In the AD 260s further raids occurred. Gallienus repelled the intruders in AD 262, but he was soon forced to return to protect Greece again. Gallienus, just like Hadrian, was a philhellene, held the archonship in Athens, and was initiated into the Eleusinian mysteries. His support for Greece was sorely needed when in AD 268 the Heruli captured and wrought considerable destruction upon Athens. Eventually Gallienus expelled the Heruli, but such attacks were only slowed and would happen again in the future (most notably in the 5th, 6th, and 7th centuries).

In the 3rd century AD the empire was also faced with fiscal crises. Inflation worked to wreak havoc on urban financial structures. The content of silver coinage (the denarius) had become debased, while at the same time imperial mints were producing ever-growing quantities of money in an attempt to keep up with fiscal demands. The situation grew particularly painful for Greek cities and their elite, the *curiales* or *bouleutai* (''councillors''), who had drawn their revenues from civic lands, from taxes, and from local dues and tolls. Those leaders with access to goods, rather than money, were able to increase prices and rents, but they became hard pressed if they depended upon debased and devalued revenues. The *curiales*, thus, began to feel unable to carry out their administrative duties. The needs of the imperial treasury, as expressed by the Roman *correctores* (regional governors, normally senators) who now governed Achaea, led to the loss of autonomy for any remaining free Greek cities. Increasing demands on the province as a whole required new strategies for production, which strategies would eventually result in a late Roman (4th- and 5th-century) resurgence of economic prosperity in Greece.

Upon Diocletian's accession to the throne in AD 284, the empire was temporarily at peace and the emperor set about solving the more serious economic and social problems in the provinces. To fix the problem of ruling vast territories, Diocletian reorganized provincial administrative units. There were 45 official districts in AD 117, but 108 districts by the end of the 4th century. Diocletian had expanded the number of Severan provinces by creating smaller provinces for easier administration and methodically divided the empire into clear eastern and western sections. The province of Achaea (with its capital still at Corinth) was incorporated into the administrative structure of the east. Diocletian placed Achaea into the diocese of Moesia, though Constantine moved the province under the jurisdiction of Macedonia in Illyricum. Northern Greece included the provinces of Epirus, Thessaly, and Macedonia. Crete remained a separate province. These provincial divisions continued to separate what we think of as ''Greece'' into several administrative units, but provided smaller territories that allowed for more efficient management and tighter control.

Once Diocletian stepped down from his office, conflict began again and the Balkans, Greece included, became a recruiting ground for Constantine's civil war with Licinius. Constantine, once in power, set about moving his capital to ''New Rome'' or Constantinople. In the tradition of earlier emperors, he felt it his right to remove art and artefacts from his provinces, including Achaea, to beautify his new capital. Nevertheless, 4th-century Achaea generally saw a renewal of building activity, an invigorated economy, and another revival of Greek letters after the hiatus of the civil wars. Subsequently, Achaean political, religious, and economic orientation was focused on the east and thus began the transition to the later Roman empire, or early Byzantine era in Greek history.

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See also **Roman Period**

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POLYBIUS *c.*200–*c.*118 BC

Historian

Polybius is an invaluable contemporary witness of the rise of Rome in the 3rd and 2nd centuries BC. Where so much is now lost, Polybius' history, at least in part, survives. He was a member of a prominent Megalopolitan family; his father Lycortas held the chief magistracy (*strategia*) of the Achaean League and was a strong advocate of Achaean autonomy in the face of the growing power of Rome. Polybius' own political career was terminated by the Roman victory over Macedon in 168 BC; he was among 1000 Achaeans deported to Italy, not to be released until 150 BC. In Rome he formed a friendship with P. Scipio Aemilianus, which was to bring him into closer contact with the workings of the Roman state and later enabled him to accompany Scipio abroad, for instance on campaign to Carthage.

During this period of enforced leisure in Rome he began his history, an ambitious work in 40 books that took the whole Mediterranean as its subject. After two introductory books the history proper begins with the 140th Olympiad (220–216 BC), the date at which Polybius believed the history of Italy and Libya merged with that of Greece and Asia (1. 3). He was concerned to explain to his fellow Greeks ''how and by what sort of government in less than 53 years the Romans came to conquer and rule almost the whole inhabited world'' (1. 1. 5, cf. 1. 3. 7–10 for Greek readership). The 53 years ended with the demise of the Macedonian kingdom in 168/67 BC. At some point, however, perhaps after reflecting on the Roman destruction of Carthage and Corinth, he decided to extend his history so that it covered not only Rome's acquisition of power (books 3–29) but also the years that followed, up to 145/44 BC

(books 30–39). His purpose was to provide the information that would allow the reader to pass judgement on Roman rule; thus contemporaries could determine whether it should be avoided or welcomed and future generations whether it should be praised or condemned (3. 4). Polybius' own attitude to Rome has been variously interpreted, pro-Roman, anti-Roman, cynical, embittered, impressed; it is perhaps safest to say that he was ambivalent.

The first five books are complete, but the rest exist only in fragments, some quite substantial (in particular the remains of book 6). These are largely the work of Byzantine excerptors, although numerous citations can also be found in Strabo, Athenaeus, and Plutarch, a sign of Polybius' importance for later writers. The "Excerpta Antiqua", which date from no later than the 10th century AD, offer an abridgement of books 1–18, though without book 17. The remaining excerpts survive due to the thematic collections compiled under Constantine VII Porphyrogennetos and reflect the interests of 10th-century Byzantium. They fall under the following headings: *de legationibus* (on embassies), *de sententiis* (on sayings), *de virtutibus et vitiis* (on virtues and vices), *de insidiis* (on plots or ambushes), and *de strategematis* (on military stratagems). Some idea of what is missing can often be obtained from the Roman historian Livy who used Polybius extensively for events in the east in books 31–45 of his own history. None of Polybius' minor works is extant (on tactics, Philopoemen, the Numantine War, and perhaps one on the habitability of the equatorial region).

Polybius had strong views on the writing of history, He frequently breaks off to point out the failings of other historians, attacking the practitioners of sensationalist history (Phylarchus, Timaeus, Zeno of Rhodes) and scorning those who spend their time immersed in the library (Timaeus again, the subject of an extended critique in book 12). He himself stressed the importance of experience and autopsy; only someone with experience of war and politics could write satisfactorily on those subjects. For Polybius the study of history was of practical value, both for the politician and for anyone trying to cope with the vicissitudes of fortune; knowledge of the past helps in the present (1. 1). Polybius' outlook has been described as "utilitarian" and therefore distinct from his Hellenistic contemporaries (Walbank), but recently an attempt has been made to discern a moralizing tendency in his work (Eckstein).

Book 6 was a digression on the Roman state, with particular emphasis on the constitution and army, both of which he considered fundamental to Roman success and especially to their recovery after the disastrous defeat by Hannibal at Cannae in 216 BC. His analysis of the constitution was very much the work of an outsider, depending heavily on the concepts and categories of Greek political thought. The strength and stability of the constitution, he argued, lay in its combination of kingship (consuls), aristocracy (senate), and democracy (people). However inappropriate this may have been as a model to interpret the Roman constitution, it has had an enormous influence on subsequent western political thought from Cicero to Machiavelli, Montesquieu, and beyond. Its impact in the east is less evident; it was worth excerpting but its theory of the value of divided power was hardly compatible with Byzantine autocracy.

In the Greek world from late antiquity onwards the influence of Polybius appears to have been limited, although he is frequently cited in reference works such as Stephanus' *Ethnica* and the *Suda*. His subject may have appealed, but his style and length deterred. He had long before been damned by Dionysius of Halicarnassus who numbered him among those writers no one reads to the end (*De Compositione Verborum*, 4). Of the historians of late antiquity Zosimus is probably the only one to show any significant awareness of Polybius, but even here the influence is formal and superficial rather than substantial. Echoes of Polybius have been detected in Byzantine historians such as Procopius, Agathias, and Anna Komnene, but nothing is explicit. Byzantine lack of interest is evident in his absence from Photios's *Bibliotheca* and the truncated state of the text.

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See also **Historiography**

Biography

Born in Megalopolis *c.*200 BC, Polybius was the son of Lycortas, a wealthy aristocrat who was a leading figure in the Achaean League. Polybius went on an embassy to Alexandria in 180 and served as Hipparch of the Achaean League in 170/69. After the Battle of Pydna (168 BC) he was deported to Rome where he remained and became the friend of Scipio Aemilianus. He wrote a history of Rome's rise to power in 40 books of which 1–5 survive intact and the rest in fragments. He died *c.*118 BC.

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POLYGNOTUS

Painter of the 5th century BC

Polygnotus was the son and pupil of Aglaophon of Thasos; his brother Aristophon and a younger Aglaophon, probably his son or his nephew, were also painters. Polygnotus, a distinguished

artistic figure of the early Classical period, worked in Athens at the time of Cimon, the leader of the Athenian democracy from 472 to 461 BC. In the absence of any surviving fragments of his monumental painting, literary texts – and Pausanias in particular – are the sole source of evidence, giving often lengthy descriptions of Polygnotus' works.

Much of Polygnotus' painting in Athens was in buildings associated with Cimon. According to Pausanias, who lived in the 2nd century AD, the wall paintings that decorated the shrine of the Dioscuri, the Anakeion, located south of the Agora towards the Acropolis, and the Stoa Poikile on the south side of the Agora were attributed to Polygnotus (he was said to have refused a fee for painting the latter). His work in the Stoa or in the Anakeion gained him Athenian citizenship.

These paintings were on view in late antiquity when Pausanias travelled to Athens, but are not preserved today, Polygnotus represented the wedding of Castor and Polydeuces with the daughters of Leucippus in the Anakeion and painted a scene of *Iliou Persis* (Troy Taken) on the interior back wall of the Stoa Poikile. In the latter, he was said to have given to Laodice, Priam's daughter, the features of Cimon's sister Elpinice, who was the artist's mistress, an element implying the idea of individual portraiture in the works of art of the time. The scene was painted on wooden panels secured to the wall, a common practice among painters of murals in Classical Greece.

Pausanias also mentions a set of pictures from the Trojan cycle by Polygnotus in the Pinakotheke (picture gallery) of the Periclean Propylaea. He had painted wooden panels to replace those decorating the Archaic gateway to the Acropolis, which was destroyed by the Persians and later reconstructed under Cimon. Thus, his paintings were earlier than the Periclean building. *Achilles in Skyros* and *Nausicaa* were also in the Pinakotheke. Another painting attributed to Polygnotus was in Rome in Pliny's time, in the 1st century AD, and depicted a man with a shield. This was a fragment of a larger composition, most probably a wall painting on wooden panels, which had been transported to Rome.

Polygnotus' most famous works, however, were at Delphi, in the Lesche (club-house), which was dedicated to the sanctuary by the people of Cnidus. Although the date of this dedication is unknown, it is usually assumed that the building was put up after the liberation of the city from the Persians, as a result of Cimon's Eurymedon campaign, and that the paintings were executed between 458 and 447 BC. Only the foundations of the building survive, on a terrace near the top of the sloping sanctuary, and it would have been impossible to reconstruct the paintings without Pausanias' description. Two scenes on wooden panels, including some 70 figures (humans and animals), often named, in a scale half lifesize, decorated the interior of the building, which consisted of a rectangular room with a roof supported by wooden pillars set round a central area where athletic exercises took place. One represented the *Iliou Persis* in a more detailed version than that in the Stoa Poikile at Athens, and the second was a depiction of the *Nekyia*, the Underworld. The scenes met in the centre of the north wall and each occupied half of it; it is possible that they extended over the short walls. Besides a detailed description of the composition, Pausanias also refers to the problems with which Polygnotus had to deal and his way of tackling them.

Recent reconstruction has suggested that the *Iliou Persis* and the *Nekyia* formed three self-contained compositions, each spreading over three walls. The former consisted of the sea scene, the altar scene, and the land scene, while the latter included the sacrifice of Odysseus on the north, Achilles and Patroclus in the centre of the western wall, and groups of heroes from both sides of the Trojan War on the south wall. This arrangement of the individual groups was no doubt intentional, so as to enable Polygnotus to focus on the main emphasis of the various subjects in his painting.

He is also said to have worked in Boeotia. He painted *Odysseus after the Slaying of the Suitors* in the temple of Athena Areia at Plataea, the foundations of which are dated after the battle of 479 BC. He also worked at Thespiae, not far from Plataea, where his wall paintings were restored in the 4th century BC by Pausias of Sicyon. One of his paintings portrayed Salmoneus, the king of Elis, with a thunderbolt, a rare subject in the art of the period, which might have been part of a larger scene.

The composition represented an important departure from the established principles of Archaic painting. The figures were not set down on the baseline of the picture, but were scattered on various levels, demonstrating a new concept for the representation of pictorial space, which is associated with the name of Polygnotus. The innovation is reflected in contemporary vase painting, as on the Niobid Painter *krater* (mixing bowl) from Orvieto, now in the Louvre, Paris. Moreover, Polygnotus' compositions were built up from figures in groups of two, three, or more. According to Pausanias, his paintings were characterized by a liking for quiet scenes with little action, often adaptations of earlier action themes to the new ideal of passivity, as in the change from the Sack of Troy into Troy Taken, as well as for the stillness of the figures. Ancient literary sources also attest that Polygnotus had a distinguished ability in the rendering of physiognomy, anatomy, and drapery to reveal the *ethos* (character) and *pathos* (emotion) of his figures. He presented them either before the action – in the process of taking a decision – or in their reaction after it. Another source for Polygnotus' art is Pliny's *Natural History*, compiled in the 1st century AD, which mentions that he painted women wearing transparent drapery and gave them headdresses of various colours, and also showed the mouth open and the teeth visible. Although certain elements of his art had appeared sporadically earlier, their combination by Polygnotus was pioneering.

ELENI ZIMI

See also **Painting**

Biography

The son and pupil of Aglaophon of Thasos, Polygnotus was a renowned painter who worked in Athens at the time of Cimon (*fl.*472–461 BC). Nothing of his painting survives. Pausanias and Pliny are our only sources. At Athens he painted for the shrine of the Dioscuri, the Anakeion, the Stoa Poikile, and the Pinakotheke. He also worked at Delphi and in Boeotia.

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PONTUS

The Greek *Pontos* (Latin *Pontus*) has in ancient Greece at least four meanings or connotations, general and specific.

(1) In Greek mythology Pontos personifies the Sea, son of Gaia, the Land, who by Thalassa fathered another ancient sea god, Nereus. Hence (2) the *Euxeinos Pontos*, or Black Sea and, by extension, the southeastern littoral of that sea, called (3) the Pontus.

How the sea became a land is no mystery. Greeks approached and named the land from the sea. But from the land, on which it turns its back, the Pontus is one of the most strikingly distinct regions of Anatolia. Geography and climate, economy and settlement conspire to make the Pontus as obvious a maritime enclave as the Lebanon is of Syria. The territorial boundaries of the Pontus run for over 500 km from Sinope in the west to the mouth of the Akampsis (Çoruh) river to the cast. Often less than 50 km inland this strip is hemmed to the sea by the Pontic Alps. Sinope is the hub of the Black Sea, where the seafaring cult of Poseidon was replaced by that of St Phokas. The Akampsis marks one of the oldest and most stable divisions in the world, traditionally between Europe and Asia, actually between Byzantium and Persia, the Ottoman and Russian empires, and today between Turkey and Georgia. The Pontic Alps rise gently south of Sinope, where they are broken by the Halys (Kizilirmak) and Iris (Yeşilirmak) rivers, which allow access to an Inner Pontus along the Lykos (Kelkit) valley. South of Trebizond (the modern Turkish city of Trabzon) a pass through the Pontic Gates near Zigana at about 2500 m carries the most easterly practicable land route to Persia, until the Pontic Alps reach the Paryadres (Kaçkar Dağ) at almost 4000 m, before falling into the gorges of the Akampsis. The Pontic Alps offer extensive summer pastures for nomads from the interior and transhumants from coastal Pontus, a region streaked by steep, well-wooded, and densely populated valleys, each with its own dialect and tartan, which connect to a chain of Classical Greek colonies along the coast. Here Greeks encountered barbarians, such as Jason found, represented in fable and fact by peoples such as the Amazons to the west and the monstrous Mossynoikoi to the east. Perhaps the most persistent of local identities is that of Chaldia, a basin on the southern side of the Pontic Gates around modern Gümüšhane, which takes its name from the Urartu sun god Haldi. Chaldia was a Byzantine theme (military province) from the 9th century AD and a surviving Orthodox metropolitan bishopric thereafter. To Turks *Halt* indicates people on the other, or "wrong", side of the mountains. The Pontus is surrounded by less well-defined boundaries: Paphlagonia to the west, Cappadocia to the south, and Armenia to the east.

(4) As a political unit a kingdom of the Pontus first emerged in the late 4th century BC, in the aftermath of the conquests of Alexander the Great. Its focus lay inland along the Lykos and Iris valleys, particularly at Comana Pontica (Gömenek), with a great temple economy, and a royal capital at Amaseia (Amasya), where the rock-cut tombs of the Pontic kings overlook a gorge of the Iris. A series of six Pontic kings called Mithridates extended the Pontic state from the 3rd century BC. Pharnaces I moved the capital from Amaseia to Sinope in 183 BC whence Mithridates VI Eupator (120–63 BC) conquered the Crimea and challenged Rome, with disastrous results. Mithridates VI died old and in despair in the Crimea and was buried by Pompey at Sinope. The last Pontic king, Pharnaces II, was defeated at Zela (Zille) by Julius Caesar in 47 BC. These Hellenized kings and their feudal nobility were of Persian origin and ruled a mixed indigenous population, traditonally settled in the *Chiliakomon*, thousands of nucleated villages.

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PORPHYRY AD 234–*c.*305

Philosopher

Porphyry was one of the most influential philosophers and scholars of late antiquity, although from his vast output of more than 70 works only a handful survive. He was probably born in Tyre and bore the Syrian name Malchas. His international career is typical of many Greek-speaking Syrians of this period who made a considerable impact on the whole of the Graeco-Roman world. He was educated in Alexandria, at the Platonic Academy (under Longinus) in Athens, and finally in Rome where he studied under Plotinus. Perhaps his most enduring legacy was the introduction of Plotinus' philosophy to a wider world, achieved both by his careful edition of Plotinus' philosophical treatises under the title *Enneads* and his explanatory commentaries, which are now lost. Among others, Longinus, his former teacher, was grateful to Porphyry for sending him copies of Plotinus' work. A short and probably incomplete work popularly known as the *Sententiae* or *Ideas Leading to the Intelligibles*, which is the only substantial survival of Porphyry's metaphysics and which consists of paraphrases, summaries, and restatements of Plotinus' ideas, may have formed a part of these commentaries or of an introduction to Plotinus.

Porphyry's scholarly commentaries on the logical works of Aristotle and on some of the major Platonic dialogues (*Parmenides, Cratylus, Phaedo, Republic, Philebus, Sophist, Timaeus*) were so valued by his Neoplatonic successors that they were absorbed into their own works. Through Iamblichus, a fellow Syrian who may have studied with Porphyry, these works survive in the great commentaries of Proclus and later Neoplatonists. Porphyry was, in particular, responsible for securing a

firm place in the Neoplatonic school curriculum for Aristotle's *Organon*, a virtually canonical set of his logical works. His *Isagoge* became, in both east and west, the standard introduction to Aristotelian logic and is frequently found in manuscripts of Aristotle's logical works. It is through Porphyry, too, that the ideas, and often the actual words, of earlier Aristotelian commentators (e.g. of Aspasius, Herminus, and Alexander of Aphrodisias) were handed on.

His vast learning, which provided an important source for Byzantine scholars, may be discerned in the fragmentary remains of bulky commentaries on Homer and other philological works on Pindar and Thucydides and, not least, in a *Chronology* that was an important source for Christian writers in their attempts to prove the greater, or at least equal, antiquity of the Jewish, compared with the pagan, tradition. But Porphyry fell foul of the Christians with the publication of his treatise *Against the Christians*. The work proved so damaging that it was publicly condemned in a number of imperial edicts and was fated to survive in fragmentary form, ironically, in the works of Christian polemicists seeking to counter its claims (e.g. Eusebius of Caesarea). Although Porphyry attacked a number of Christian doctrines (the divinity of Christ, the resurrection of the body), he reserved his chief criticism for the worldly quarrelling of Christ's disciples, especially Peter and Paul, and their distortions of his teaching. Most serious of all, however, was his devastating and scholarly attack on the authority of scripture itself and particularly that of the book of Daniel, which he proved to have been written after the events it was claimed to have prophesied. Porphyry is commonly referred to by Christian writers as the enemy of Christianity and his name was effectively invoked against the Arians who were dubbed Porphyrians, probably because of their subordination of Christ to the Father.

Unlike Plotinus, Porphyry was deeply interested in religion, to which he devoted several large works including a collection of oracles, *Philosophy from Oracles*, in which he apparently explored the philosophical content of oracles mainly from oracular centres in Asia Minor (Didyma and Claros). The attempt to relate philosophy to religion was one of his abiding interests. Realizing that the philosophical road to what he called "salvation" was open only to the few, he sought among the various religions (including Judaism) a common way of salvation open to all men. His failure to find such a way involved him in addressing serious questions about the assumptions of traditional religious practice and in expressing concern about its limited spiritual horizons. His *Letter to Anebo*, a probably fictitious Egyptian priest, raises these issues and was answered by Iamblichus in *On the Mysteries*, a work that can lay claim to being the first systematic attempt to grapple with the philosophy of religion. This work of Iamblichus was to be a momentous point in the reconciliation of pagan religious practice, particularly the salvific rites of theurgy, with philosophy. Iamblichus set the tone for Proclus who in this respect had a profound influence on pseudo-Dionysius and Michael Psellos, who tried to adapt his views to Christian sacramental theology. But, despite his more reserved views about such subjects as the effect of theurgic rites or the presence of the divine in statues, some of Porphyry's pious philosophical tracts survived as popular reading: for example, the *Letter to Marcella*, written to his wife, whom he married late in life, and in which he apologizes for an enforced absence with the explanation that physical separation means nothing to those whose true self is set at the level of "intellect" which is beyond all spatial restrictions; or *On Abstinence*, which advocates vegetarianism and a spiritualized religious practice. The charming essay *On the Cave of the Nymphs*, which presents a number of differing philosophical allegorical interpretations of Homer's depiction of the cave in which Odysseus hid his Phaeacian treasures (*Odyssey*, 13. 102–12), had an enduring influence as a model of Neoplatonic metaphysical allegory despite its unsystematic approach compared with the rigours of Proclus' method.

ANDREW SMITH

See also **Neoplatonism**

Biography

Born probably at Tyre in AD 234 with the Syrian name Malchas, Porphyry studied at Alexandria, at Athens under Longinus, and at Rome where he was a pupil of Plotinus. He wrote more than 70 works, of which few survive. He also edited the *Enneads* of Plotinus. His commentaries on Aristotle and Plato are much valued. He died *c.*305.

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PORTRAITURE

Realistic likenesses of individuals originated in the 4th century BC in Greece, although portrait prototypes had appeared two centuries earlier as dedication statues. An example of this type is the seated figure of *Chares* (British Museum, London), a hereditary priest from the temple of Apollo at Didyma. Similar categories of images from the later Archaic period are commemorations honouring victorious athletes, mainly at Olympia. In the 5th century BC the cult of the hero was prominent, but portrayals of athletes continued. There was a high degree of realism, although the works reflected an idealized picture of youth. Between 480 and 450 BC the practice of honouring the great citizens of Athens with portrait statues became acceptable, although only posthumously. During the Classical period images of military and political leaders, poets, and other heroic men were created so as to reflect their superhuman qualities.

With the end of the Peloponnesian War in the early 4th century BC a novel approach in rendering portraits evolved. Contemporary heroes and intellectuals were now honoured in public locations by private donors. A portrait of the philosopher

Plato by the sculptor Silanion (Vatican Museum, Rome) was commissioned by a former student for the Academy in Athens. The sculpture is more of a mask, individual features that reveal nothing of the inner workings of the mind. Towards the middle of the 4th century BC, when the Greeks were encountering rising Macedonian power under Philip II, father of Alexander the Great, Lycurgus, appointed virtual dictator of Athens for 12 years, systematically commissioned a large number of public buildings decorated with portrait statues; he wished to revive the great heroes of the past as examples for modern Athenians to emulate. A large number of portraits were set up at public sites such as the theatre of Dionysus, where bronze statues of the great tragic playwrights Aeschylus, Sophocles, and Euripides were installed. The likenesses of these individuals have an added quality of character and personality that contrasts with the idealized and detached countenances of the 5th-century examples. As full-length statues, their gestures and pose were as important as the features, reminding viewers of their personality, character, and physique. Such statues were frequently inscribed with the subject's name, but rarely with the sculptor's. Portraits of women were rare before this time and restricted to generic statues of maidens, or as female types engaged in everyday activities on vase paintings. An exception to this trend is a portrait of an elderly priestess of Athena by the sculptor Demetrius who specialized in depicting elderly people.

In the last third of the 4th century BC Alexander the Great chose Lysippus as the official sculptor for his court portraits. The heroic ideal of the beardless young general became a standard mode of representation for the Macedonian king. The famous mosaic of *Alexander the Great and Darius* at the Battle of Issus (Museo Archeologico Nazionale, Naples) is a Roman copy of a Hellenistic painting probably painted in Egypt, perhaps by Helen, who trained under her father Philoxenos, in the 4th century BC. It is also known that Alexander commissioned the great painter Apelles and the gem engraver Pyrogoteles to portray him, in addition to the sculpted likenesses by Lysippus. Despite literary descriptions of the beautiful young general, no great images remain for posterity.

Subsequent Hellenistic rulers emulated this portrait type but eventually added their own distinctive style and individual characteristics to the mass-produced likenesses. The most significant change in the portrait tradition reflected the philosophical changes that had taken place. Aristotle, teacher of Alexander, identified men according to personality rather than classifying them according to their occupation, the practice of the 5th century BC. In sculptural portraits, therefore, there was a marked change from emphasizing external features to showing the characteristics that mirrored the psyche of the individual and reflected his or her inner life. Changing attitudes towards the physical and spiritual world are identified in the portrait of *Aristotle* commissioned by Alexander. The new biographical portrait encompassed the entire life of the individual and, as such, became a milestone in the development of the history of portraiture and art in the western world.

The portraits of Alexander's successors are more individualized, with the three major kingdoms in Egypt, Syria, and Asia Minor assimilating distinctive artistic traditions. General categories of portraits still persisted, that of the ruler and the intellectual. A desire to portray strong emotions resulted in a new emphasis in portrait-making that emphasized a kind of hyper-realism in depicting anti-heroic types. Drunken old women, defeated boxers, dancing dwarves, emaciated men, and languid lovers all promoted art and its spread, not only in public places of gathering, but at a popular level. Because of the vast numbers of portraits produced, there is ample evidence for multiculturalism and diversity in the ancient Greek world, shedding light on ordinary people as well as the aristocracy. With the Roman conquest of Greece, the changing tradition of creating and commissioning portraits of private citizens as well as public heroes was an important artistic and philosophical legacy passed on to Rome by the Greeks. Unfortunately, surviving painted portraits and likenesses created in mosaic are rare in the Greek world. As a result of the eruption of Mount Vesuvius in AD 79, however, several personalities have been brought to light by archaeological discoveries at Pompeii, Herculaneum, and Stabiae. A 25 × 20 cm mosaic of an unidentified Pompeian woman of the 1st century BC (Museo Nazionale, Naples) reflects the psychological portrait type popular in the Hellenistic era. Her likeness is formed with very small pieces of coloured stone, called tesserae, in a manner that mimics the subtle shading of the facial features. Likewise, the double portrait of a man and his wife (Museo Nazionale, Naples), discovered next door to a bakery in Pompeii, is painted with the cultural symbols of the middle class. He is holding a scroll and his wife, in her red-dyed robe, holds a wax tablet and stylus, perhaps for the accounts. For the merchant classes, it was important to show one's occupation and status in addition to a rather naturalistically rendered likeness.

In Egypt the painters of the Fayum were either Greek residents dating from the Ptolemaic period of the late 4th century BC, or those who had inherited the Greek artistic tradition. The art school established at Alexandria was an extension of Graeco-Macedonian art, a tradition that melded with the Egyptian manner of creating body doubles to which the spirit of the deceased could return. Culture was much the same under the Romans as it had been under the Hellenistic rulers, with the chain of artistic knowledge remaining unbroken for many years. The Fayum portraits bridged the gap between Hellenistic portraits and the abstract likenesses of Byzantine icons.

The wax portraits completed during the life of the individual and displayed in the home belonged to the traditions of Greek art. After death, the portrait panel was placed over the Egyptian mummy's face. Gold wreaths, jewellery, and hair ornaments were painted on, contrasting with the impressionistic quality of the portrait. What is unique about the Fayum portraits is the way in which the personality is reflected through the faces of men and women in a psychologically compelling way. The Christian emphasis on the spirit with the body as a vehicle for the soul found a parallel in the Fayum portraits, particularly the eyes, which convey spirituality; they were the ideal stepping stone for the transition from painted portrait to icon. Portraits underwent a series of transformations from idealized image to the abstracted faces of Byzantine emperors and members of their court, which were represented in paintings, mosaics, coins, and jewellery.

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See also **Painting; Sculpture**

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POSIDONIUS *c.*135 BC–*c.*51 BC

Philosopher and scientist

To call Posidonius a "historian" would be unduly reductive. Posidonius was a Stoic philosopher and a scientist, with a wide world-view that integrated cosmic, natural, and human phenomena. More than 400 testimonia and fragments testify to his contribution to knowledge, which ranges from mathematics, astronomy, and geology, to ethics, anthropology, and history. He meditated on the universe, seen by him as an animated organism, and on its generation and destruction. He studied the solar system, envisaged a lunar theory to explain the periodicity of tides and a new method of measuring the circumference of the earth, suggested "ethnic criteria" for naming the earth zones, and outlined a history of the circumnavigation of Africa. In human sciences his curiosity was stimulated mainly by customs, an essential element of what he called "ethology" (fragment 176 in the Edelstein-Kidd edition, E-K), i.e. character formation and characterization of people. He might he defined as a "primitivist" who idealizes the primeval stages of mankind as a golden age; but he was convinced that the ascent of man from barbarism to civilization was determined ultimately by "wise men" – legislators, inventors, imitators, or importers of foreign arts and techniques (testimonium 6; fragments 265–67 in the Jacoby edition; fr. 284 E-K) – as if there was an element of "progress" in his thought. Undoubtedly, he admired the presumed simplicity of "noble savages" and had no praise for the luxury and extravagances prevailing in his time either in decadent cities and royal courts (especially in the east: e.g. frr. 56, 58, 61a, 65, 77 E-K) or among the ruling elites of tribal societies (frr. 67, 152 in the Theiler edition, D-F). He eulogized the presumed virtues, frugality, justice, and religious devotion of the ancient Romans (frr. 256–61 and 265–67 E-K, with the exempla of Brutus, Marcellus, and Scipio), as against the current intemperance and corruption. Following Polybius, he probably looked at the crucial year of 146 BC as the completion of Roman imperialism and the beginning of its moral decline. Like Polybius, he was a Greek thinker who tried to explain the merits of Roman rule to his fellow countrymen and to persuade them to accept it, at the same time doing his best to persuade the Roman ruling class to behave in a way that was attractive to most of the subject peoples. He fully justified imperial rule, even the exaction of tribute by more intelligent nations, in return for protection and security for the weak, on the model of the relationship between the Pontic Heracleotes and the Mariandynians, who were allegedly reduced to serfdom by consent (fr. 60 E-K). He believed that riches spur men to do evil, and was ready even to acknowledge that tyrannical rule may provoke rebellions; yet he never justified revolts and described vividly the immoral and extravagant behaviour of rebel leaders (e.g. Athenion, tyrant of Athens: fr. 253 E-K; Demophilus, the leader of the rebel slaves in Sicily: fr. 59 E-K). In the light of such views it is not easy to decide whether Posidonius sided with the Roman Optimates or with the Populares. His romantic view of the past invites comparison with the Gracchan tradition, but unlike it, his conservatism was definitely anti-revolutionary (fr. 51 E-K; cf. Jacoby, frr. 87, 110–12).

Posidonius' direct predecessors were Panaetius and Polybius, the first as his Stoic teacher, the second as chosen universal historian to continue his work. Yet Posidonius was not dogmatic, and continuation did not imply identification with the views and methods of his predecessor. He criticized Chrysippus (fr. 34 E-K), the grand master of 3rd-century Stoicism, and attacked Polybius for his biased report of Tiberius Gracchus' activities in Spain (fr. 271 E-K). In sciences and philosophy he used Plato extensively, and Aristotle, and occasionally many others, for example, the "astrologer" Bion (a disciple of Democritus), the philosopher Crates, the historian Callisthenes, the peripatetic statesman Demetrius of Phaleron, and the geographer Timosthenes. In ethnography Posidonius was comparative and moralistic in spirit. He valued autopsy no less than Herodotus, whom he mentions together with Heraclides Ponticus on the circumnavigation of Africa, and shared with him the main didactic purpose of pointing out the contrast between *Naturvlker* and civilization. An oriental Greek like Herodotus, Posidonius was no less inclined to ascribe to ancient eastern sages discoveries conventionally attributed to later Greek scientists – for example, the atomic theory, invented according to Posidonius not by Democritus of Abdera but by the Phoenician Mochos of Sidon before the Trojan War (fr. 286 E-K). In his repetitive descriptions of luxury banquets and receptions, drinking habits, etc., Posidonius echoes the Hellenistic motif of trust, best represented before him by Phylarchus of Athens and Agatharcides of Cnidus. He also probably used Ephorus, Polybius' main predecessor in universal history, and Timaeus; and he knew of Eudoxus of Cnidus' observation of Canopus when making his own (fr. 204 E-K). Finally, Artemidorus of Ephesus, who travelled in Gaul and Spain around 100 BC, was known to Posidonius, who occasionally disagreed with him (Jacoby, frr. 119, 223).

Posidonius was unquestionably the greatest Stoic philosopher of his age. Among his closest friends and admirers were some prominent Romans, such as Rutilius Rufus, Cicero, and Pompey, and his prestige in Latin literature is well attested (e.g. in Vitruvius, Seneca, Pliny, Quintilian, Tertullian, Lactantius, St Augustine, Macrobius, and Boethius). The Hellenic tradition starts with his disciple Jason, who succeeded him at Rhodes, and with Diodorus Siculus, who used Posidonius (with other sources) on the period covered by his *Events after Polybius* (146–*c.*86 BC). Posidonius' influence as an intellectual must have been extensive in his generation, but he soon began to be

consulted, quoted, and at times criticized by scientists and philosophers mainly for specific points of their interest. Thus, for instance, his disciple Geminus, an astronomer, compiled an "epitome" of, or a commentary on, his *Meteorologica* (t 42, 72 E-K), and the philosopher Arius Didymus included in his doxography Posidonius' definitions of cause, substance, and matter, origin, destruction, and so on. Strabo, a great admirer of Posidonius, made full use of his geographic works, though criticizing his "aetiology" ("precisely what our school [i.e. the Stoic] avoids") and his rhetorical style (fr. 239 E-K).

Plutarch quotes Posidonius both on scientific and moral issues in the *Moralia* (and in his *Lives* of great Romans (Marcellus, Fabius Maximus, Marius, Cicero, Pompey, and Brutus). Galen used Posidonius extensively but critically, especially on ethics; Athenaeus, our main authority on Posidonius' historical works, aptly understands the relationship between his ethnography and his Stoicism; and Diogenes Laertius quotes his views on many topics, especially in book 7 (on the Stoics). Among later readers the most prominent is perhaps Cleomedes (now dated to the 4th century AD), who was interested in astronomy and physics. The *Suda* has an entry on Posidonius, and in the 12th century Eustathios made full use of his scientific and ethnological work in his commentaries on Homer and Dionysius Periegetes.

Surprisingly enough for a man of such reputation, with nearly 70 recorders, none of Posidonius' 30 or so works has reached us in its entirety. But perhaps modern evaluations of his achievements have been too high. The claims that in the history of ancient thought Posidonius can be compared to no one but Aristotle, or that he was the most important critic and philosopher of culture in the ancient world, are patent and unwarranted exaggerations, partly resting on questionable reconstructions of Posidonius' thought allegedly retrievable from later authors supposed to be his followers or even his plagiarists. At any rate, in the Hellenic tradition of Roman and Byzantine times Posidonius' place seems assured among the great thinkers of second rank – still a very high station.

DAVID ASHERI

Biography

Born at Apamea in Syria *c.*135 BC, Posidonius was educated in Athens under Panaetius but lived mostly in Rhodes. He participated in an embassy to Rome in 87/86 BC and travelled extensively in the west. His school in Rhodes was a centre for Stoicism. He wrote on a wide range of subjects including science, mathematics, geography, and history as well as philosophy. He died *c.*51 BC.

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POTTERY

The introduction of pottery vessels is one of the defining features of the Neolithic period (*c.*7000 BC). Although at this time it was handmade, some Greek Neolithic pottery reached high standards of fabric, form, and decoration, the last mostly in geometric patterns. The products of the Neolithic cultures of Thessaly (Sesklo, Dimini) are particularly noteworthy.

There was only limited continuity of features into the Early Bronze Age (*c.*3500 BC), when quite different types appeared and some early influence was exerted by Anatolian forms. The most interesting innovations are found in Crete (Vasiliki "teapots", the mottled colouring produced by manipulating the firing process) and the Cyclades (incised "frying pans" with representational motifs; painted patterns).

The Middle Bronze Age saw the rise of the Cretan palaces (*c.*2000 BC), the first widespread use of the wheel for pottery-making, and highly sophisticated ceramics. Some Cretan wares were extremely fine ("eggshell") and motifs, in the "light-on-dark" technique characteristic of the time, were subtly accommodated to the shapes. Potters on the mainland had some distinctive fabrics (Minyan, Matt-painted ware) but less decorative imagination, while Cycladic craftsmen derived their inspiration from Crete, at the same time showing individual enterprise in the development of shapes (panelled cup) and motifs (goblins).

The Late Bronze Age (*c.*1600 BC) was dominated, both politically and culturally, first by the later Cretan palaces, then by the Mycenaeans of the Greek mainland. In Crete a new system of decoration (''dark-on-light'') succeeded, and was used at first for a combination of geometric motifs (spirals) and floral and grass designs, then also for a highly distinctive ''marine'' style. The Myceneans inherited all these features but imbued the pottery and other products of their material culture with distinctive stylistic and thematic features. In particular they simplified and stylized the decorative elements, which in Crete had been relatively naturalistic, to a high degree. Some shapes are also distinctive of their taste (*kylikes*, or high-stemmed goblets; deep bowls). A ''pictorial style'', the motifs of which are mainly birds, animals, and warriors in chariots, was less widespread. In the last phase of the Bronze Age (12th and early 11th centuries BC) a pictorial strain continued (including the new ''Octopus style'' of the Aegean) but pottery subsided into a more limited range of shapes with little or no decoration. In the sub-Mycenaean phase (mid-11th century BC) the pottery produced was poor in quality and restricted in variety.

Although little Cretan pottery was exported beyond the Aegean in the Palace periods, within that area it was strongly influential. Mycenaean products reached a much wider audience – Cyprus (for which market much of the pictorial style was manufactured), the Near East, Egypt, southern Italy, and Sardinia. Philistine pottery of a late phase of the Bronze Age is derived from Mycenaean.

During the Protogeometric period (*c.*1025–900 BC) there was a great revival of quality, if not range, with new taut shapes and precise, often compass-drawn motifs, and craftsmen showed a fine sensitivity for the harmonizing the two. This characteristic quality continued to prevail in the subsequent Geometric period, when zones of decoration tended to multiply until they covered the whole surface of the vase. Schematic figures, geometric in character, also appeared, and some of the scenes in which they were shown may be the earliest pictorial versions of Greek myths. The largest vases (*c.*1.5 m high) were used as grave markers, and mourning and funerary scenes are common.

The Geometric style lasted to *c.*725 BC and beyond, but, in its later stages, enlargement of and greater concentration on the figured scenes brought a decline in the relationship of decoration to shape. This trend was partly due to the increasing interest of Greek vase painters in the arts of the east Mediterranean, where a fuller and non-geometric treatment of the human form was current (although not in pottery decoration). ''Orientalizing'' features (*c.*725–625 BC) are most evident in the adoption and treatment of bird and animal motifs.

Corinth was the most innovative centre at the time, and a new technique was introduced there *c.*700 BC. This was the so-called ''black figure'' method, which involved painting the figures in a clay slip (the black colour was achieved by the firing process) on the vase surface and incising details of anatomy, drapery, etc. with a sharp point; other colours were sometimes added. The precision of this method suited the fine detail required for the decoration of the tiny perfume flasks (*aryballoi*) which were the staple of the Corinthian industry.

The Athenians, with a preference for larger vases, initially drew their figures in outline, painting in the detail, but around 625 they too adopted the black-figure technique and used it increasingly for large-scale mythological scenes. Their pottery rapidly superseded that of Corinth in popularity. The stately magnificence of the work of the best Athenian black-figure painters (such as Execias and the Amasis Painter) of the mid-6th century BC is astonishing. Interest continued to be focused on the figured scenes (see below), although the elegance and symmetry of the shapes and the surface finish were also of excellent quality. Black-figure pottery was widely exported, especially to the Greek colonies, and regional styles developed, in the case of the Etruscans even outside the Greek-speaking world.

Around 530 BC another new technique (''red-figure'') was introduced and gradually became dominant. The vase surface itself was now covered with paint, the figures being left ''reserved'' to take on the natural colour of the clay when fired. Interior details were painted. The more natural body colour, and the greater fluidity that the painted line gave to dress and anatomy, allowed artists to depict more complex scenes in a more naturalistic way, but the otherworldly quality of black-figure was lost. During this period the art of wall painting was becoming prominent in Greece and there is good reason for thinking that vase painters adopted on occasion certain features (variable ground lines, landscape and background elements) that were better suited to the broad sweep of large panel pictures than to vase decoration.

Although there is no convincing explanation why pottery decorated with figured scenes in the red-figure technique ceased to be produced much after *c.*300 BC, it may be that the aesthetic effect had become much less satisfying, now that the importance of the relationship between shape and decoration had been forgotten in the quest for exciting narrative and spectacular effects, and borrowings from the world of free painting had proved counterproductive. Red figures were also less appropriate for vase decoration than black since, while the latter stay visually on the surface of the vessel and emphasize its volume and structure, the former seem to recede into the shape and deny its solidity.

From the time when the Greeks started to establish colonies and trading centres overseas (as early as the 8th century BC, but more intensively from the later 7th century BC), especially in south Italy and Sicily but also in other areas (the north Aegean, the Black Sea, Asia Minor), their pottery became more widely distributed, more influential on other cultures, and, in theory at least, more open to modification by the adoption of foreign ideas. In fact the influence of Greek pottery on that of other traditions was strictly limited (Etruscan vases are a marked exception) and the Greeks, whether at home or abroad, seem to have adopted little directly (the rhyton shape is one example) apart from a few superficial features, although exotic stylistic features were transformed into local idioms in the Orientalizing period. In particular, the black- and red-figure styles that are so admired today had no further influence until the Neoclassical movement of the 18th century (see below).

Although the red-figure style lasted longer (till the early 3rd century BC) in the Greek colonies of south Italy, in the Hellenistic period it was superseded by other forms of decoration. Painted figured scenes were less prominent, but minor decorative elements were applied in this way (West Slope ware). Figures were now depicted in relief on vases made in moulds (Megarian bowls). The tradition of relief decoration continued

in the most widely known varieties of Roman figured pottery (Arretine and Terra Sigillata, the latter sometimes known as "Samian", although it has no significant connection with the island of Samos). Many Roman shapes were also inherited from the Hellenistic world.

Greece, as part of the Roman empire, succumbed to Roman forms in the field of pottery and, if the Hellenistic influences are discounted, the products of this period are Greek only in the sense that they were manufactured in the Aegean, where some local variants of more widespread types naturally appeared. Only relatively recently has serious scholarly attention begun to be focused on pottery of the late Roman and subsequent periods.

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See also **Painting**

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PRAXITELES

Sculptor of the 4th century BC

Praxiteles was an Athenian sculptor active in the 4th century BC; Pliny (*Naturalis Historia*, 34.50) places him in the 104th Olympiad (364–361 BC). It is likely that he came from a family of sculptors; his father was probably Cephisodotus, who created a famous statue of *Peace* (perhaps dedicated after 374 BC when Athens came to terms with Sparta). Praxiteles is likely to have been born around 400 BC and had probably died before 326 BC, when his son is known to have been responsible for naval liturgies at Athens. He was celebrated in antiquity, along with Lysippus, for achieving "realism" (Quintilian, *Institutio Oratoria*, 12.10. 1–10).

Praxiteles made statues in both bronze and marble, and was, according to Pliny (*Naturalis Historia*, 34. 69), "more successful" in the latter medium. Marble was the medium used for his most celebrated statue, the *Cnidian Aphrodite*, which in Pliny's day attracted people to the city of Cnidus (*Naturalis Historia*, 36. 20). Praxiteles had apparently been commissioned by the people of Cos to make a statue of Aphrodite, and he created two, one draped, and the other naked. The people of Cos rejected the former, while the naked statue was acquired by Cnidus and displayed in a circular temple so that the goddess could be viewed from all sides. One of the best descriptions was made by Lucian of Samosata (*Amores*, 13–14) in the 2nd century AD, who described it as "an exceedingly beautiful work of Parian marble". The original is likely to have had parts that were gilded or painted to enhance the work. There was a tradition that Praxiteles used his mistress, Phryne, as the model for the statue. Roman copies of a naked Aphrodite, clearly just concluding a wash, are thought to be representations of this work. The original was carried off to Constantinople where, according to the Byzantine chronicler George Kedrenos, it was displayed in the basilica of Lausus – along with many other statues of the ancient world including the chryselephantine cult statue of *Zeus* from Olympia – until its destruction in a fire in AD 476.

Praxiteles also made a comparable *Aphrodite* in bronze. This was carried off to Rome and was subsequently destroyed in a fire that consumed the temple of Felicitas where it was displayed. Praxiteles' continuing popularity in the Roman period is reflected by the way that his works were carried off to Rome. These were displayed in the gardens of Servilius, on the Capitoline, and in the collection of Asinius Pollio. Praxiteles' fame led him to be associated with the creation of the Mausoleum of Halicarnassus, one of the wonders of the ancient world.

Phryne was celebrated in a gold statue made by Praxiteles at Delphi (Athenaeus, 13. 591b). Phryne herself came from Thespiae in Boeotia, and it was there that Praxiteles made a marble statue of *Eros;* Strabo records the tradition that Praxiteles had given it to his mistress as a gift. This statue was removed by the Roman emperor Caligula, returned by Claudius, and then snatched by Nero; in Pliny's day it was displayed in the lecture rooms of Octavia in Rome. Pausanias, writing in the 2nd century AD (9. 27. 3–5), recorded that, although the original had been destroyed by fire in AD 80, a copy of Praxiteles' work made by Menodorus of Athens could still be seen at Thespiae.

At Olympia Pausanias (5. 17. 3) saw a marble *Hermes* carrying the infant Dionysus in the temple of Hera that was attributed to Praxiteles. A *Hermes* was in fact discovered in the temple in 1877 and was accepted as Praxiteles' original until questioned in 1927. Although there is a possibility that it is an original that was touched up by later sculptors, scholars now tend towards the view that the Olympia piece – perhaps the one seen by Pausanias – is in fact a work of the Hellenistic period, either by a member of Praxiteles' school or by somebody working in his style.

Pausanias (8. 9. 1) also recorded statues of *Apollo*, *Leto*, and *Artemis* in the temple of Leto at Mantinea. Although these statues have not survived, the base showing the *Muses* and *Marsyas*, mentioned by Pausanias, is preserved. These statues were dated to "the third generation after Alcamenes" who was

active, according to Pliny (*Naturalis Historia*, 34. 49), in the 83rd Olympiad (448–445 BC).

Another of Praxiteles' works known from later Roman copies as well as representations on Roman coins is the *Apollo Sauroctonus* ("Lizard Killer"). This statue was described by Pliny as showing a young Apollo waiting to kill a lizard with an arrow. Altogether almost 70 works have been associated with Praxiteles, though some may be the works of members of his school or workshop.

Praxiteles' sons Cephisodotus (probably named after his grandfather) and Timarchus were also sculptors. Pliny (*Naturalis Historia*, 34. 51) places their activity in the 121st Olympiad (296–293 BC), although an inscription from a statue base shows Cephisodotus II was active in the year 344/43 BC (because it names the priest of Asclepius for that year). Further generations of sculptors can be traced into the Roman period.

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See also **Sculpture**

Summary

Born probably *c.*400 BC Praxiteles was the son of Cephisodotus of Athens, himself a sculptor, and was active *c.*375–330 BC. He worked in bronze and marble and specialized in portraits, notably of gods. No surviving statues can be attributed with certainty to him, though several are ascribed to his school. His sons Cephisodotus and Timarchus were also sculptors. He died *c.*326 BC.

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PREHISTORY

Prehistory is the term used to describe societies which did not have written records. In Greek archaeology the term is sometimes used to include the Bronze Age, but more frequently (as here) it refers to the three periods of the Stone Age: Palaeolithic, Mesolithic, and Neolithic.

Because of its geographical position between Africa, Asia, and Europe, Greece is an area of great significance for the study of the movement of the earliest human groups between these areas, yet the discovery of the Greek Palaeolithic is very recent, dating from the late 1950s and early 1960s, when the first finds of stone tools were made in Thessaly and Epirus. The earliest and most important discovery to date is the human skull found in 1960 in the cave of Petralona, 75 km northeast of Thessalonica. The skull, which was initially thought to be that of a Neanderthal man (who lived in the middle Palaeolithic period) is now believed to belong to an archaic *Homo sapiens* (a more advanced, though earlier human being than Neanderthal) and to be at least 200,000 years old, much older than any of the stone tools found on Palaeolithic sites in Greece.

The earliest stone tools recovered from excavations and surveys are 50,000–30,000 years old and belong to the Levallois-Mousterian industry characteristic of the middle Palaeolithic. This industry, which is characterized by bifacial leaf points, is generally associated with Neanderthal man, who probably penetrated into northern Greece from central and southeastern Europe after the beginning of the last glaciation (a Neanderthal skull has been reported from the Mani peninsula in the Peloponnese). During the glacial periods northern Greece was positioned between the extremes of cold in the north and aridity in the south, and because it may have supported larger pockets of tree cover than areas further south, it was a favourable habitat for animals, and hence for hunter-gatherers. The groups which populated northern Greece are believed to have been small (about 25 people on average), and an extensive area such as Epirus may have had a total population of no more than 50 people at any one time.

In Epirus investigations in rock shelters (Asprochaliko, Kastritsa, Klithi) and open sites (Kokkinopilos and Grava on Corfu, which would have been attached to the mainland at the time) have yielded substantial quantities of middle and late Palaeolithic flint tools, animal bones (particularly of red deer and caprines), fish bones, sea molluscs, and plant foods. Research carried out by British archaeologists has highlighted the importance of the environmental setting of sites, such as their altitude and orientation. The use of the different sites by the highly mobile hunter-gatherer groups would have been conditioned by the time of the year, which affected the seasonal movement of animals, and by the specialized function of any one site. Subsistence strategies would have changed over time, following climatic and environmental changes. Conditions were at their most unfavourable during the glacial maximum (*c.*18,000 BC), but gradually gave way to a warmer, wetter climate, leading to the spread of deciduous forests and the downcutting of rivers around 10,000 BC.

In Thessaly middle and late Palaeolithic tools and fossilized animal bones were found on the banks of the Peneus river, while caves appear to have remained uninhabited. In the Peloponnese the most important upper Palaeolithic site is the large cave of Franchthi, where occupation started about 20,000 BC and continued into the Mesolithic and Neolithic periods.

The Mesolithic (8th millennium BC) is a period of change, which is particularly noticeable in the greater dependence on seafood, but in Greece sites dating from this period are very rare, probably because many were coastal sites and may have been swamped by the rising sea levels in later periods. At

Franchthi the range of plant foods (nuts, legumes, and, for the first time, cereals) suggests a year-round occupation of the cave. The sea was the most critical resource for the provision of food, and for communications, as shown by the presence in the cave of obsidian from Melos. The earliest burials in Greece are also found in the cave in this period.

The momentous change to a subsistence economy based on agriculture and animal herding and the birth of the farming village in Greece date from the 7th millennium BC, in Thessaly, the Argolid (Franchthi cave), and Crete (Knossos). Except for Franchthi, the earliest Neolithic sites had not previously been occupied (Crete had not been occupied at all), and because the animal and plant species used by the earliest farmers were not indigenous to these areas, it seems likely that the settlers came from lands where farming was already established, most probably Anatolia, sailing across the sea with the first domesticated animals and seeds on board their boats. Some pioneering explorations must have been carried out prior to full settlement, as the farmers seem to have identified advantageous environments for farming. The major areas of occupation and subsequent expansion were in Thessaly, particularly the Larissa basin, and they attracted settlement because of their good arable soil and possibly the natural irrigation system, through river valleys and flood plains, which prevailed at the time.

The Greek Neolithic (7th–4th millennia BC) is divided into early Neolithic, middle Neolithic, and late Neolithic. Between the early and late Neolithic settlement expanded steadily and increased in density. It was particularly successful in Thessaly; just over 100 sites were established in the Larissa basin in the course of the 1000-year duration of the early neolithic, and the number had increased to 150 by the end of the late Neolithic. Some sites did not survive from one phase to the next, but several new ones were founded in their place. All areas of mainland Greece, including Macedonia and central and southern Greece, were occupied by the end of the early neolithic, and island settlement, previously confined to Crete, Alonisos, Corfu and Antiparos (Saliagos), increased during the late Neolithic to include Aegina, Ceos, Mykonos, and Naxos. Although it has been suggested that successive waves of farmers arrived from the east throughout the Neolithic, it is more likely that the initial influx of people into the area was not followed by any equally significant number of immigrants.

The characteristic site in this period is the farming village, situated on a ridge or knoll and numbering a few hundred inhabitants. The dwellings were initially flimsy, but by the middle Neolithic the prevailing building type was a structure which, although only one storey high, could be fairly large, had a stone foundation, a superstructure of mudbrick or *pisé* (layers of clay) faced with plaster, and a flat or pitched roof of wattle and daub. Buildings with a megaron plan (rectangular with two rooms of uneven size) make their appearence in Thessaly (Otzaki, Sesklo) in the middle Neolithic.

The main means of subsistence was the cultivation of plant foods: cereal (wheat, barley, millet) and pulses (lentils, peas, vetch). Of less importance was the herding of domesticated animals; sheep and goats predominate on excavated sites, with pigs and cattle in smaller numbers. Fish or game could play a supplementary role in the diet depending on the location of the settlement. Neolithic society is largely believed to have been egalitarian, with the whole community involved in food production. A move towards social differentiation may have taken place in the late Neolithic with the establishment of settlements on marginal lands.

Among the crafts, pottery making was the single most important innovation of the period. For a time the farmers of the earliest villages did not produce ceramic vessels (the phase is known as the preceramic Neolithic), but made extensive use of perishable materials such as wickerwork, matting, wood, and hide. Once introduced, pottery reached very high artistic and technical standards, though the potter's wheel was still unknown, and it was made in a considerable variety of styles; the surfaces were painted in one or more colours (polychrome), were impressed or incised, and the patterns were mostly geometrical (chevrons, triangles, spirals, etc.). There are both chronological and regional differences between the styles. Much of the fine decorated pottery must have been non-utilitarian. Tools were made of bone and stone (both polished and chipped), as were beads, pendants, and other ornaments.

Clay figurines are among the most attractive artifacts of Neolithic Greece. The largest group consists of steatopygic female figurines of different types, but there are also seated male figurines, and models of houses and furniture. Once thought to be fertility goddesses, the steatopygic figurines are today believed to have had a variety of functions, as their use for one specific cult cannot be inferred from their contexts in graves and houses. Ritual was an important element in the life of Neolithic communities. Although no structures have been unequivocally connected with ritual ceremonies, these may have taken place in open spaces, as in other cultures. The nature of Neolithic religion is unknown. Suggestions have been made that it was an "animistic religion" and, if so, the figurines may represent the spirits of ancestors.

The Neolithic was a period of increased communications, by sea as well as land. Similarities between pottery styles and the movement of materials from one area to the other reveal contacts between settlements and regions. The most frequently imported material, and one which travelled in great quantities over great distances, was obsidian from Melos, out of which the sharpest cutting tools were made.

The greatest strides in the study of Greek prehistory have taken place in the last decades. New sites are being discovered with every new survey, and ongoing research is taking place into artefacts, as well as other areas relevant to the understanding of prehistoric man: strategies of exploitation of the environment, transmission of agricultural economy, seafaring, and human colonization of the islands. Progress has been made through the use of scientific techniques for dating deposits and sites, and for reconstructing the palaeoenvironment, but there is much scope for work leading to a better knowledge of important environment aspects, such the configuration of the Greek shoreline, particularly during the Palaeolithic, and changes in climatic conditions and vegetation cover. More accurate dating of neolithic sites would lead to a better understanding of the divisions between periods, and of the correlations between the different local cultures and assemblages during the period.

In modern Greece the Neolithic period arouses a fair amount of interest, among both archaeologists and the general public. It is regarded as the period when many of the "good things" in our modern civilization first appeared, including art, religious thought, and above all farming and the village way of life,

both of which have remained fundamentals of Greek life to this very day. Moreover, figurative art appears for the first time in this period, as do other more specially "Greek" forms, like the meagron building plan. By contrast, the study of the Palaeolithic (and the Mesolithic) has yet to be assigned the position and given the support it enjoys in other countries. That it has not achieved such status may be due not only to the fact it is still in its infancy or to the more impressive character of the products of later Greek cultures, but also to the fact that the achievements of man in this period are seen as having more significance at a global rather than at a national, Greek level. One of the leading archaeologists in the field, Geoff Bailey, made a plea in 1992 for increased support for training and research in Palaeolithic archaelogy within Greece, stressing that this is the period when our species "acquired those most fundamental characteristics by which we define our humanity". It therefore deserve, and let us hope will receive, greater recognition in the future.

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See also **Archaeology**

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PRIENE

City in Ionia

Priene was a small Greek city (population *c.*4000) on a peninsula in Asia Minor *c.*30 km south of Ephesus that flourished from the mid-4th century BC throughout the Hellenistic and early Roman periods. It is notable for being one of the most intelligible examples of ancient town planning, and its remains include most forms of public and domestic Greek architecture. The buildings, which are laid out on a grid plan, sit on the southern slope of Mount Mykale overlooking the Meander valley, *c.*15 km from the sea. In antiquity Priene was connected by a branch of the Meander river to its seaport at Naulochos on the bay of Latmos. The river silted up over time, however, causing the bay to become landlocked, and the city diminished in importance in later Roman times without access to a harbour.

Priene seems to have been founded originally at a different location, perhaps as early as the 2nd millennium BC, but its early history is known almost entirely from ancient authors, including Strabo, Herodotus, and Pausanias. In the 7th century BC it was one of the 12 major cities of Ionia and a member of the Ionian league. In the 6th and 5th centuries BC Priene was variously under the influence of the Lycians, Carians, Lydians, Phrygians, Athenians, and Persians. The city was refounded, probably by the Persian satraps the Hekatomnids, at its present location *c.* 350 BC, and it is from this date and throughout the Hellenistic period that most of the extant remains come. Priene, along with the other Greek cities of Ionia, was freed from Persian domination in 334 BC by Alexander the Great, who lived there while he laid siege to Miletus on the other side of the bay of Latimos. After Alexander's death Priene came under the control of various Hellenistic kings – Lysimachus, the Ptolemies, the Seleucids, and the Attalids. Upon the death of the last Attalid king in 133 BC, Priene passed into Roman hegemony along with the rest of the kingdom of Pergamum. By the 3rd century AD, with the river silted up, the city dwindled to a town half its original size.

Priene was designed according to the philosophy of orthogonal town planning that was promoted by the renowned 5th-century BC architect Hippodamus of Miletus. Facing south to provide maximum light during winter, it was surrounded by a defensive wall with the main gate on the northeast and subsidiary gates on the southeast and west. High above and behind the city on the summit of Mount Mykale was a walled acropolis that was a permanent station for a military garrison. The urban water supply flowed down from the summit by aqueduct to reservoirs on the northeast of the city, and then was piped to public buildings and fountains. The streets were laid out as a grid, the six major streets on the east–west axis comprising a main thoroughfare 7.36 m wide and five others 4.44 m wide. These were intersected at right angles by narrower streets, 3.5 m wide, most of which incorporated steps because they lay on the north–south slope of the hill. The standard city block (insula) was 120×160 Attic feet. In the public areas of the city the buildings often took up an entire block or more, while in the domestic quarters each insula usually accommodated four houses.

Priene displays all the components necessary to the Classical Greek city (polis). At its heart was its major monument, honouring the city's patron, the 4th-century BC temple of Athena. An inscription states that it was dedicated in 334 BC in the name of Alexander the Great, who furnished the funds that were needed to complete basic construction. The temple was built by the renowned Carian architect Pytheos, who was esteemed as well for his work on the Mausoleum at Halicarnassus, one of the seven wonders of the ancient world. As was common practice among famed architects in antiquity, Pytheos wrote about his general architectural theories and he used as illustration the temple of Athena at Priene. His book, unfortunately, survives only in the commentary of Vitruvius. The ceiling of the peristyle was highly unusual in that it contained coffers carved in very high relief with scenes depicting gods fighting Giants and Amazons. The statue of Athena that stood within the cella was a replica of the colossal figure of Athena from the Parthenon in Athens. In front of the temple was the altar of Artemis, an ornate rectangular structure adorned with nearly life-sized figures carved in high relief set between attached columns.

To the east of the sanctuary of Athena was the commercial and social centre of the city, the agora. This large, open rectangle (75.64 × 35.40 m) contained various shops and was the site of many public meetings and festivals. To the north and south of the agora were other public buildings: the bouleuterion, the council house; the prytaneion, a smaller administrative

building; stoas; gymnasia; a stadium; various temples and sanctuaries; and the theatre, whose ruins are impressive especially since they preserve the 2nd-century BC stage building more completely than at most other sites of the period. Filling the insulae on the west and east sides of the city were private dwellings. The large number of houses surviving at Priene is particularly propitious, for ancient Greek domestic architecture can be studied to this extent at few other sites. The houses were relatively small, with several rooms surrounding an open court. While most appear to have been of one storey, some preserve stairs that would have led to an upper level.

Although Hippodamus was esteemed by Hellenistic Greeks as the inventor of formal city planning, Priene as a visual expression of his ideas was a relatively late example of orthogonal urban design. In the 2nd millennium BC Egyptian workers' villages at Kahun and Tell el-Amarna consisted of housing built in rectangular blocks along parallel streets. In the 5th century BC Herodotus (1. 180) describes the streets of Babylon as a grid, all being either parallel or perpendicular to the Euphrates river. In the Greek-speaking world, in the 7th century BC, both Smyrna in Asia Minor and Megara Hybleia in Sicily were built with parallel streets on orthogonal plans. Priene's position in the heart of the Hellenistic world provided it with greater influence than its size might otherwise have inspired. The fact that it was the site of an important temple built by a major architect also brought the city an extra measure of attention. Cities that were built or rebuilt under the Hellenistic kings or Roman emperors, e.g. Miletus, most assuredly were influenced by knowledge of orthogonal town planning at Priene.

Priene's influence seems not to have continued beyond the 3rd century AD when the city lost half its population and fell into disrepair. From that time it consisted primarily of poorly built houses and shops – constructed of materials from Hellenistic ruins – that extended over the original city streets destroying the grid plan. Priene was deserted from the 7th to the 10th centuries. Between the 10th and 13th centuries the site was reoccupied and Priene was a bishopric of the Metropolitan of Ephesus.

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PRIESTHOOD

In Mycenaean Greece the king discharged religious functions that, for want of a better term, may be identified with those of a high priest. In Athens these functions came in time to be invested in an elected magistrate known as the *archon basileus* or king archon. However, in no period in antiquity did there exist any institution exactly comparable to our notion of priesthood. The word *hiereus*, which comes closest to "priest", denoted an official attached to a particular sanctuary who supervised the *hiera* (sacred objects) stored within that sanctuary and who conducted the sacred rites connected with the cult. The most important of these were the performing of sacrifice, the purification of the sanctuary, the punishment of those who violated sanctuary regulations, and maintaining the buildings in good repair.

Since Greek religion did not concern itself much with morality, priests never functioned as spiritual advisers; their duties were primarily those of a liturgical and administrative nature. They were debarred from playing any part in the ceremonies connected with birth, marriage, and death because of the pollution that was believed to be associated with these events. Priests also lacked the technical competence and skill to pronounce upon matters arising from the practice of religious ritual; instead, when problems arose, particularly those having to do with pollution, religious experts known as *exegetai* were consulted.

Eligibility for priestly office was based on external qualifications. The most important qualification was the absence of any blemish or deformity, since it was believed that a blemish constituted evidence of divine disfavour. So far as we know, priests did not have to undergo any formal training, though they obviously had to be adept in the performing of their religious ritual. Since most temples were open to the public only a few days of the year, the holding of a priesthood was generally a part-time occupation. Priests were not paid for their services, though they were entitled to portions of meat from all the sacrifices performed in the sanctuary over which they had charge. Some had special seats of honour in the theatre of Dionysus. The more important priests were distinguished by their dress; the Hierophant of the Eleusinian Mysteries, for instance, wore a mantle, probably of purple, a headband surmounted by a wreath of myrtle, and carried a staff.

As a general rule, gods were served by priests, goddesses by priestesses. Some priesthoods were hereditary, others were for a fixed term. In democratic Athens the newer priesthoods were annual appointments for which all members of the citizen body were eligible. The more venerable ones, such as that of Athena Polias or Poseidon Erechthcus, were reserved for members of a particular *genos* or noble kin-group. With few exceptions the powers of a priest were strictly curtailed and there is no evidence for any involvement *qua* priest in politics. Even in matters that had to do with religion, it was the citizen body as a whole, rather than the priesthood, that took all major decisions, without consulting the priesthood, at least in any formal way. Priests were not in a position to challenge the legal or political authority of the state because they never acknowledged any corporate

identity. Thus when Socrates was accused of violating religious law in 399 BC, a group of indvidual citizens conducted the prosecution. Even so, it is probable that the major priesthoods carried considerable prestige. The priestess of Hera in Argos was so important that the Greeks based their system of chronology on the number of years that she had been in office (Thucydides, 2. 1).

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See also **Cult; Women's Cults**

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PROSTITUTION

In ancient Greece the sex trade was not illegal and there was a ready market for prostitutes who, in contrast to later Christian sexual ethics, were not regarded as improper objects of male desire. For Athenian men, who usually married in their thirties and for whom marital fidelity was not a requirement anyway, females under the protection of citizens, whether unmarried girls or married women, were, at least formally, strictly off limits and erotic relationships with such women could attract the severest penalties. Sex with prostitutes was much less risky and provided an outlet for "releasing the pressure of lust" (Xenophon, *Memorabilia*, 2. 2. 4).

Male prostitutes (*kinaidoi*) were much in demand; there was no overarching moral stricture on same-sex behaviour in antiquity and, while a man was expected to be the active sexual partner, the object of his desire could be male or female. However, just as relationships with respectable women were restricted, so too there were formal restrictions regarding male partners; men of actual or potential citizen status were considered improper objects of a fully sexual relationship. Indeed, there could be serious civic consequences for citizen prostitutes; those who subsequently exercised their civic privileges invited prosecution and civic dishonour (a good example is the case of Timarchus in the 4th century BC, documented in Aischines, 1). However most prostitutes in antiquity, male and female, were slaves, and thus had no status to compromise.

While the all-embracing term of *ergasia* ("trade") denoted prostitution in Hellenic antiquity, prostitutes did not comprise a homogeneous category and there existed a broad spectrum of practice and status for those involved in selling sex. At the bottom of the heap were common prostitutes (*pornai*) who walked the streets and worked in the brothels of the Piraeus and the Kerameikos, still Athens' red-light district today. For brothel workers (always female) life could be grim; in one 5th-century BC text a concubine who fears her lover may send her to the brothel resorts to poisoning him (Antiphon, 1. 14). Other prostitutes, male and female, sat in cubicles (*oikemata*) open to the street, displaying themselves Amsterdam-style to prospective clients.

The Athenian state involved itself in the regulation of prostitution: *pornai* paid tax to the state, while Philemon (fr. 4) claimed that Solon established state-run brothels for the provision of cheap sex to all citizens as a democratic measure. The state also controlled the fees of flute girls and male kithara players, hired to provide musical and erotic entertainment at symposia, often the site of sexual dalliance; the mere appearance of an Athenian woman at a symposium could bring her reputation into question (Isaeus, 3. 13–14). In later periods too public entertainers were assimilated to prostitutes, perhaps because of their public visibility.

Courtesans (*hetairai*), on the other hand, exercised at least some choice in the bestowal of their favours and were hired for companionship as well as sex. Courtesans who commanded extravagant fees (*megalomisthoi*) could become rich and famous; Phryne, possibly the model for Praxiteles' *Aphrodite of Cnidus*, was reputedly rich enough to rebuild the city wall of Thebes (Callistratus, *On Courtesans*). Sometimes permanent attachments to men resulted and it can be difficult to distinguish the courtesan from the concubine (Aspasia and Theodote, the mistresses respectively of Pericles and Alcibiades, are two examples). Prostitution could even provide a way out of slavery and there are many examples of men buying the freedom of a favourite girl; Herodotus (2. 178) claims that Rhodopis of Thrace was redeemed from slavery by Sappho's brother and became rich. However, Neaira of Corinth (a city renowned for its prostitutes) started life as a slave, was freed by her lovers, and then, following a legal prosecution, was sold again ([Demosthenes], 59). The sex trade offered a chance of social mobility to some but it was a precarious existence; prostitutes could come up in the ancient world, but they could also go down.

Certainly many ancient writers vilified prostitutes and condemned them for their extravagance and use of artifice; in the 4th century BC Alexis sneered at girls who compensated for their lack of natural charms with high heels, make-up, false breasts, and the ancient equivalent of a bustle (fr. 18). Men who frittered their money away on prostitutes or fought over them in the street also attracted criticism. Yet in pre-Christian Hellenic society it was not unacceptable for men to patronize prostitutes, who were regarded as a cure for dangerous desire, nor was the profession the object of religious disapproval; indeed Aphrodite was the tutelary goddess of prostitutes and temple prostitution in her honour is attested for Corinth (Strabo, 8. 6. 20), although this was unusual for Greece. Christianity, however, introduced a radically different slant on sexual continence. Marriage became the only proper outlet for male sexual desire and, indeed, a "defence against desire" (Brown, 1988). Paul advised one Greek community to marry rather than to burn (I Corinthians 7. 9), while in the 4th century John Chrysostom, hugely influential in the Orthodox Church, envisaged marriage not as a celebration of sexual love but as a method of avoiding fornication (*De Virginitate*, 19. 1. 1–2). One consequence of this was the outlawing of same-sex behaviour between men; an imperial edict of 390 demanded that male prostitutes in Rome should be burnt. Orthodox theology regards desire as the spiritual effect of original sin and the Church still censures fornication and male homosexual acts.

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See also **Homosexuality; Women**

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PTOLEMIES

Greek rulers of Egypt

The Ptolemies, Greek kings of Egypt, formed a dynasty that ruled the country from 305 BC to 30 BC. The Ptolemaic dynasty takes its name from the first such king, Ptolemy the son of Lagus, a Macedonian childhood friend and later general of Alexander the Great. Alexander conquered Egypt (then part of the Persian empire, which he set out to destroy) in 332 BC, during the early stages of his great expedition to the east. While in the country, he founded the city of Alexandria on the western branch of the Nile delta on the coast of the Mediterranean Sea. As Alexander passed on, the city was left in the hands of an architect and a financial administrator and it appears to have functioned as a Greek city from early on. It later became the royal capital of the Ptolemies, and among the greatest cities of the ancient world.

When Alexander died in 323 BC, his empire was divided for purposes of administration among his generals; Egypt passed into the control of this same Ptolemy, first as satrap (the Persian term for a provincial governor) and then as king. Ptolemy ousted the financial administrator Cleomenes, and finally had him killed for peculation in the grain trade. The country remained firmly under Ptolemy's control throughout the power struggles that took place among Alexander's successors during the next 20 years. Generally he concentrated on consolidating his power in Egypt, eschewing the territorial ambitions of his fellow successors in Asia and Greece. In 305 BC Ptolemy declared himself king, as did other successors in their own territories.

Ptolemy I Soter ("Saviour", an epithet he received after helping the island of Rhodes during a siege) established a secure kingdom, which for the next three centuries was to be ruled by his direct descendants. A mark of his political acumen was the fact that he was the only one of Alexander's successors not to die a violent death in battle. Greek civilization and culture came to Egypt, and settlers from Greece and Macedonia were actively encouraged. Alexandria and other cities in Egypt grew with the influx of the new ruling class. Certainly it can be maintained that a veneer of the Greek way of life was imposed on the native civilization of Egypt. To Ptolemy I's early patronage can probably be attributed the foundation of the famous library of Alexandria, in which the works of Greek literature were codified, copied, studied, and therefore preserved for posterity. Attached to the library was the museum ("Shrine of the Muses", the patronesses of intellectual arts), a residential study facility which attracted the finest Greek scholars and writers of their day. Alexandria became the capital of Greek culture, overtaking Athens as its centre.

Ptolemy I made his son co-regent in 285 BC, and the latter on his father's death in 283 became Ptolemy II (later to receive the cult title Philadelphia, "sister-loving"). During his long reign Ptolemy II presided over the growth of Alexandria into a famous and rich capital. The library and museum flourished, the wealth of Alexandria and its kings became proverbial among contemporary writers, and Ptolemy II amassed the greatest navy ever known in the Greek world. The largest political clouds on the horizon were Egypt's constant dispute with the Scleucid kings over Code ("Hollow") Syria, the area known as the Middle East today. Two wars were fought over this territory in Ptolemy II's reign. In the mid-270s BC Ptolemy married his full sister Arsinoe (known as Arsinoe II Philadelphus), a clever woman who abetted his political schemes. This established the custom of royal brother–sister marriage in Ptolemaic Egypt, although at the time the Greeks were scandalized at the notion of incest.

Ptolemy III, known as Euergetes ("Benefactor"), succeeded his father in 246 BC His reign is best known for the Third Syrian War, in which he invaded the Seleucid Syrian empire to support the claims of his sister Berenice Syra ("the Syrian") as queen to the Seleucid throne. (The Greek poet Callimachus wrote a poem called "The Lock of Berenice" to describe the dedication of a lock of hair by Ptolemy's queen, also named Berenice, to ensure his safe return from the war. The lock was, according to the poem, apotheosized into a constellation and subsequently spotted in the heavens. Although only fragments now remain of Callimachus' poem, it was translated into Latin

by the Roman poet Catullus and is one of the most famous ancient poems.) The sister Berenice Syra had already been murdered when Ptolemy arrived. Although he captured some important cities in Asia Minor, this appears to have been the limit of Ptolemaic expansion.

So far the 3rd-century Ptolemaic empire had been characterized by good kings and stable government. With the accession of Ptolemy IV Philopator (''Father-loving'') in 221 BC, the situation changed. Ptolemy IV's predilections were more for intellectual and dilettante pursuits than for politics, and he succumbed to the control of unscrupulous ministers. Although he won a great victory in the Fourth Syrian War at the Battle of Raphia in 217 BC, he failed to press for any concessions in the peace treaty. After Raphia, Egypt was shaken by severe internal revolts, and in 206 BC by the secession of Upper Egypt for 20 years. The lack of any positive foreign policy continued, and Ptolemy IV and his sister-wife were eventually murdered by his ministers in 205 BC, their deaths being kept secret for some time.

Ptolemy V Epiphanes (''Made Manifest'') acceded to the throne as a child following his father's murder. Other Greek Hellenistic kingdoms unsuccessfully colluded to divide Egypt between them. The end of the Fifth Syrian War brought him a wife of the Seleucid house, the first of the Ptolemaic queens to be called Cleopatra. Ptolemy V was crowned in traditional Egyptian fashion at the old dynastic capital Memphis, south of Cairo. He was the first of the Ptolemies to be crowned pharaoh, although all had been depicted in native dress in statues and temple reliefs. The priestly decree of 196 BC which followed his coronation is the famous trilingual Rosetta Stone (now in the British Museum) written in outmoded Egyptian hieroglyphics, current Egyptian demotic, and Greek. The Greek part of the Rosetta decree enabled translators for the first time to decipher Egyptian hieroglyphics, one of the most important advances ever made in latterday understanding of ancient Mediterranean history.

Ptolemaic Egypt of the 2nd century BC was a fundamentally different world from that of the 3rd century BC. All the Hellenistic Greek empires were affected by the growing power of Rome and its increasing interest in the Greek east, and Egypt was no exception. Beginning with Ptolemy VI (a child king like his father), who acceeded to the throne in 180 BC, successive Ptolemies warred among themselves and collateral relatives, reunited, ruled jointly, and fell out again. The practice of incestuous marriage between siblings may have had adverse genetic effects over generations. Fraternal civil wars, exile, incest, murder, and even matricide are well-documented features of Egypt in the 2nd century BC. A prime example of the rulers of this period is Ptolemy VIII Euergetes II, also called Physkon (''Potbelly''). He succeeded his brother Ptolemy VI, killed his nephew Ptolemy VII (the son of his brother Ptolemy VI and sister), married Ptolemy VI's widow, who was also his own full sister, and concurrently married the daughter of his brother and sister (his double niece). He produced children by both wives, and also an illegitimate son. It is almost inconceivable to imagine how this complex marital situation functioned, with a man married at the same time to both his sister and her daughter, but inscriptions attest to a triple joint rule for at least some of the period, although civil war did break out intermittently.

After Ptolemy VIII the situation did not improve. Quarrelling brothers found that the temptation to invoke Rome to support their side against their rival proved too difficult to resist. No strong king emerged to bring the matter under control, and the Alexandrian populace, increasingly disgusted with the dynastic debacle, seized power. Finally, in the early 1st century BC either Ptolemy X or Ptolemy XI bequeathed the kingdom of Egypt to Rome, ensuring that the last half-century of Ptolemaic rule was inextricably entwined with the history of Rome.

The legitimate line of the Ptolemies died out with the deaths of Ptolemy IX, X, and XI. Ptolemy XI was actually established on the throne by the Roman dictator Sulla in 80 BC, but he soon murdered his stepmother (to whom he was then married), and was in turn himself murdered by the Alexandrian mob, who resented Rome's interference in their country as well as the murder of their queen. The succession passed to the illegitimate son of Ptolemy IX, who became Ptolemy XII, known as ''Auletes'' (''Flute player'', indicating his frivolous tendencies). Auletes and his sister-wife Cleopatra V probably had six children together, among them the girl destined to become Cleopatra VII, the last Ptolemaic ruler of Egypt.

Far from secure on his throne, Ptolemy XII depended on the firm support of Rome. In 59 BC he paid a huge sum of money to be formally declared a friend and ally of Rome, but the wrath of the Alexandrian mob drove him into exile in 58 BC. Auletes fled to Rome to the protection of Pompey, one of the triumvirs (three generals who jointly ruled in Rome), and then to the city of Ephesus in Asia Minor. The two eldest daughters of Auletes appear to have ruled Egypt in his absence; one soon died, but the marriage of the other to the alleged son of Rome's Parthian enemy Mithradates VI caused consternation in Rome. From a Roman point of view, Ptolemy XII seemed preferable to his maverick second daughter; in 55 BC, with the help of Roman troops, he was escorted back to Egypt by Aulus Gabinius, the Roman governor of Syria, and reinstated on the throne. He had his second eldest daughter killed, and ruled until his death in 51 BC.

The eldest surviving child of Auletes was now Cleopatra, who was declared queen and who as Cleopatra VII Philopator ruled jointly with her younger brother Ptolemy XIII (then no more than a boy), whom she married in accordance with Ptolemaic custom. Ambitious ministers contrived to control the boy king and divide him from his sister, who even as a girl of 18 was showing signs of political cunning. Cleopatra was forced to flee Egypt. She then became involved in the consequences of the civil war between Pompey and his rival Julius Caesar. Caesar came to Egypt in pursuit of Pompey, and decided to support the claims of Cleopatra against her brother. The so-called Alexandrian War of 48–47 BC ensued in which Caesar and Cleopatra were victorious, and Ptolemy XIII was killed. Cleopatra was reinstated on her throne by Caesar and married her younger brother Ptolemy XIV, ostensibly ruling jointly with him.

A legendary Nile cruise was then enjoyed by Cleopatra and Caesar, a married man some decades older than the queen. When he left Alexandria she was pregnant, and bore a son (probably Caesar's child) named Caesarion. Cleopatra spent the years 46–44 BC in Rome with Caesar and their son, but had no option but to return to Egypt after his assassination in

44 BC. Caesar's supporter Mark Antony and adopted son Octavian (later to become the Roman emperor Augustus) initially joined forces to defeat Caesar's assassins, but Antony and Octavian later became rivals for ultimate power in Rome. Antony's agreed control of the eastern part of Roman territory set the stage for Cleopatra's cataclysmic meeting with him in 41 BC, when he summoned her to meet him at Tarsus in Cilicia.

For 11 years Cleopatra was intermittently associated with Antony (who at the time was married to a succession of Roman women including, finally, Octavian's half-sister), and she bore him three children. Antony's political differences with Octavian, his liaison with a foreign queen deemed dangerous by the Romans, and Antony's and Cleopatra's apparent dynastic ambitions for their children meant that war was inevitable. Rome declared war upon Egypt. At the battle of Actium in 31 BC the combined forces of Antony and Cleopatra were defeated by Octavian, who pursued the couple back to Alexandria. With defeat now inescapable, Antony committed suicide, followed by Cleopatra some days later.

With the death of Cleopatra the Ptolemaic dynasty ended (her son Caesarion was killed, and the fates of her two sons by Antony are unknown). Egypt lost its independence and became a province of Rome until its conquest by the Arabs in AD 642. Despite the gradual decline of the Ptolemies from their glorious beginning in the 3rd century BC through to the petty internecine squabbles of the 1st century BC, Ptolemaic Egypt remained independent from Roman control longer than the other Hellenistic empires. The upper echelons of Greek society made it a Greek kingdom which can be credited with the creation, preservation, and transmission of Greek culture and ways of life.

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See also **Alexandria; Egypt**

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PTOLEMY

Astronomer and geographer of the 2nd century AD

Claudius Ptolemaeus (more usually known to English-speakers as Ptolemy) worked in Alexandria, and the astronomical observations he records suggest that he was active in the middle of the 2nd century AD. We know virtually nothing else about him.

Ptolemy's principal astronomical work, the *Mathematike Syntaxis* (Mathematical Treatise), is usually known in the modern world as the *Almagest*, which is derived from the Greek *megiste* ("greatest") with the Arabic definite article added to it, a name that bears witness both to the dominant position the *Almagest* established in ancient astronomy, and to its influence on later astronomers. The *Almagest* is the culmination of the attempts of Greek astronomers to create a mathematical model that would account for and predict the observed movements of the heavenly bodies (the fixed stars, the sun, the moon, and the five known planets), on the basis of regular movements in circles and taking the earth as the fixed point. This is indeed mathematically possible, but, looked at on this basis, the movements are very complex, and incorporate many very small variations, so that the weaknesses of any particular model might become apparent only when errors had accumulated over centuries of observation. Ptolemy's great achievement was to devise a model that not only produced a very close match to what was observed, but was also capable of modification and could be refined as new inconsistencies were identified. For this reason it was not seriously challenged for 1300 years; it was only in the 16th century that it was realized that the mathematics could be simplified enormously by taking the sun as the fixed point and having the earth as well as the planets move round it in orbits which were elliptical, not circular. Ptolemy builds principally on the work of Hipparchus, active some three centuries earlier, and uses the epicycles (orbits around the circumference of a circle whose centre is itself moving round the circumference of another circle) and eccentric circles (circles whose centre is not the sun) that were the basis of Hipparchus' system. Book 1 incorporates a Table of Chords which is in fact the equivalent of a modern sine table, and reveals considerable knowledge of trigonometry; Ptolemy certainly did not invent trigonometry (for it had already been used by Hipparchus), but his full and clear exposition of its principles is one of the foundations of the modern development of the subject. Book 2 deals with the geometry of the heavenly sphere; book 3 is on the sun; books 4 and 5 are on the moon; book 6 discusses eclipses; books 7 and 8 are on the fixed stars, and include a catalogue of stars; the rest of the work (books 9–13) deals with the complex problems of the movements of the planets. It is difficult to be sure which

elements of the system described in the *Almagest* are Ptolemy's own, and which are derived from his predecessors (and indeed many of the observational data he uses must have come from earlier astronomers). It is, however, the sophistication and adaptability of the system that guaranteed that it would dominate subsequent astronomical thought, and for this Ptolemy can clearly claim the credit.

Almost as important and influential is his other main work, the *Geography*, an attempt to systematize and map everything known about the world at the time. We cannot tell whether Ptolemy himself ever produced such a map (the maps that are found in surviving manuscripts are certainly derived from Byzantine originals), but the material in the *Geography* is presented in such a way that drawing a map from it would be relatively easy. Ptolemy had predecessors in this (he himself acknowledges his dependence on Marinus of Tyre, who is otherwise unknown), but it is likely that the use of lines of latitude and longitude to define positions on the earth's surface may be Ptolemy's own original contribution. Impressive though the mathematical and geographical concepts in the work are, the factual basis on which the *Geography* rests was inadequate (and could hardly be otherwise, since for most of his information Ptolemy would have been dependent on the reports of others, and sometimes he would have had nothing to use but travellers' tales). Within the Roman empire his information is reasonably accurate, but further afield it is completely unreliable. Errors in some of the astronomical data on which he relies (observations of the time at which eclipses were observable in different places, for example) inevitably produce distortions. Nevertheless it was not until the 16th century that it was entirely superseded.

Less well known in the modern world, but almost as influential, was Ptolemy's *Harmonics*, which built on the work of Aristoxenus, and is most notable for the balance it strikes between empirical and mathematical approaches. It is an invaluable source of information on the views of earlier writers, and on ancient musical practice, and had great influence on the theory of music in the Middle Ages (through Boethius) and in the Renaissance.

Among Ptolemy's others works are: the *Tetrabiblos* (so called because it is in four books), an astrological work based on the principles of the *Almagest* and perhaps an attempt to put astrology on a scientific footing; the *Optics* in five books (surviving only in part, in a Latin version of an Arabic translation) which deals with reflection and refraction, and represents a substantial advance on Euclid's *Optics*; the *Planispherium* (surviving in Arabic and Latin translations) dealing with the geometry of the celestial sphere and in particular the system of stereographic projection of the heavenly sphere on to the plane of the equator; the *Analemma* (surviving only in Latin translation, with some fragments in Greek) on the orthogonal projection of the sphere on to a single plane; and the *Phaseis Aplanon Asteron* (of which only the second book survives) on the weather associated with the heliacal risings and settings of prominent stars. He is also said to have written a rather unimpressive minor philosophical work, *On the Criterion and the Ruling Faculty*. Proclus tells us that he tried to prove Euclid's controversial parallel postulate (Postulate 5) and gives us excerpts from the proof. Ptolemy is also credited with works on dimensions and on mechanical problems.

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See also **Astronomy; Cartography; Geography**

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PURPLE

In ancient Greece the colour purple was an emblem of conspicuous consumption, a symbol of wealth and prestige. The most favoured dye was extracted from shellfish found in the Mediterranean, a process that was developed in the Near East by the Phoenicians around 1400 BC. They searched every coast known to them – from the Sea of Marmara to Asia Minor, from Greece to southern Italy, from Lebanon to north Africa – for murex shellfish, establishing factories and trade centres. Common species producing sea purple were *Murex trunculus*, with a blue-purple hue, and *Murex brandaris*, known to the Venetians as Turk's Blood because of its dark red stain. Producing purple was a painstaking and costly process despite cheap labour. Enormous quantities of the molluscs were needed for the potent colourfast pigment, which was extracted from the mucus glands of freshly killed sea snails. They yielded an almost black liquid called *anthos* (blossom) by Greek dye workers. Exposure to air and sunlight developed the purple hue. Modern experiments using 12,000 *Murex brandaris* and a high extraction technique have yielded 1.5 g of dye. Though it is difficult to equate ancient costs with modern currencies, the price of sea purple in Greece around 200 BC might be estimated at $28,000 a kilo. Dye workshops, with their spoil heaps of discarded shell fragments and bits of decaying shellfish, were neither clean nor savoury places of employment. The Greek geographer Strabo said that the Phoenician dye centres of Tyre and Sidon were so

putrid that they were "unpleasant for residence". One could easily identify dye workers by their brightly coloured hands and arms as well as the smell that clung to their bodies and clothing.

The demand for purple exceeded its supply and in the ancient world cheaper and more plentiful substitutes were developed by diluting the true organic dye with water, urine, or honey, or by using animal or vegetable material that approximated to the desired colour. One such source came from the kermes insect called *coccus ilicis* which produced a colour between blue and red. There were industries devoted to the production of counterfeit purple from cheap materials such as mulberry juice, amaranth blossoms, and crushed bloodstone. Papyrus fragments found in Egypt containing dyeing recipes are based on four books attributed to the Greek philosopher Democritus, who reportedly dabbled in alchemy, converting substances that yielded the desired colour and lustre to textiles that would fool even connoisseurs of the coveted hue.

Ancient historians and poets wrote about purple textiles and their production. The most famous dye centre in Greece was at Hermione in Argolis; its textiles were in demand throughout the Mediterranean and coveted by the Persian court. Robes made at Hermione were entirely purple with a broad vertical white stripe. In Thessaly the workshops of Meliboea were praised by ancient writers for the quality of the dyes produced there. The town of Bulis in the Gulf of Corinth engaged more than half the population in harvesting and processing the molluscs. Spartan law prohibited dyers from the region as falsifiers of nature. Yet, with time, Pliny claimed that the shellfish along the Laconian coast and on the island of Cythera provided the best purple dye in the world. The islands of Euboea, Chios, Rhodes, Cos, and Cyprus yielded an excellent quality of purple. In the west the cities of Syracuse and Tarentum were also noted for their purple dye centres. In fact, a hill in Tarentum named Mount Testaccio is made up entirely of broken murex shells, both the *trunculus* and *brandaris* types.

The *Iliad* makes numerous references to garments of purple worn by kings and generals. In the *Odyssey* the hero Odysseus is given a cloak dyed sea purple by his wife, Penelope. Purple robes were deemed worthy offerings to Apollo at Delphi by king Croesus of Lydia, according to Herodotus. The poetry of Sappho relates the high esteem of purple garments as gifts for gods and goddesses. Greek lyric poets of the 5th century BC equated purple with the garments of heroes and gods. Parrhasius of Ephesus was notorious for his luxurious tastes including a purple cloak, which was considered to be well above his status as a painter. Plato, one of the Athenian moral majority, considered purple to be a decadent emblem of wealth and an effeminate article of clothing. However, despite the conservative views of Athenian philosophers, by the 4th century BC the use of purple was fairly widespread in Greece. What had previously been a mark of Persian tyranny and decadence was transformed by Alexander's defeat of Darius in 330 BC into an accepted status symbol, when he exchanged his white Macedonian robes for the coloured trappings of royalty brought to the Mediterranean world by Phoenician tradesmen.

The Greeks did not associate the colour purple with the same mystical qualities as it enjoyed in the Near East. However, they too dressed their deities in purple and the ancient association of the colour with war persisted. Its psychological and aesthetic peculiarities were of the utmost importance. Greek generals wore purple and its significance was promoted in the dress of singers at festivals in honour of the gods. In the Classical and Hellenistic periods purple enjoyed a sacrosanct and noble status, adorning distinguished people. It was common, therefore, for great statesmen, actors, courtesans, and wealthy citizens to wear purple as a rather blatant show of power and status. A 4th-century BC grave of a woman in south Russia yielded some purple cloth that was painted on with a brush. The colour was frequently used as paint, rather than as a dye, and was also employed as a cosmetic.

The Romans, like the Macedonians, originally wore white or natural-coloured garments. However, over the course of time certain robes became associated with specific officials or priests for wear on festivals and other sacred occasions. One of these was the purple pallium of the priesthood. An old Roman family, named after Furius Purpureo, had the purpura shellfish as its insignia. Centres of international trade included the dye workshops of Greece, which were especially important in promoting a desire for the exotic and expensive colour. The first official documented to have worn a purple robe was an aedile named P. Lentulus in 63 BC. Purple stripes were worn on the togas of officials and eventually became the privilege of senators. As the colour became more popular, the purple trade flourished in Rome and dealt in many items, mainly textiles but also leather, ivory, pottery, marble, and stone. Porphyry, a deep purple stone imported from Egypt, was used as the material for sarcophagi for the royal family of Constantine the Great and for statuary of the Tetrarchs, to name a few examples.

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PYDNA

City in Macedonia

Pydna was a Greek city founded on the cast coast of Pierian Macedonia on the Thermaic Gulf in the 7th–6th centuries BC. An acropolis site on the coast south of the modern village of Makriyialos is now thought to have been its original location. The city played an occasional role in political events in Greece

in the 5th and 4th centuries BC, and, as such, is attested by Greek historians of the period. The 5th-century king Alexander I of Macedonia was known as the "Philhellene", but his interests inevitably clashed with those of Athens in northeastern Greece. When the Athenian general Themistocles fell out of favour and fled from Athens, he was given refuge at Pydna by Alexander in the early 460s BC before escaping to Asia. In the build-up to the Peloponnesian War and the revolt of Potidaea in 432 BC, Athens briefly besieged Pydna, hoping to establish a base there for operations in the north.

In 410 BC the Macedonian king Archelaus I captured Pydna and refounded the city as a Macedonian town some distance inland to the northwest, probably to guard it from attack from the sea. This was the site of Macedonian and Roman Pydna, near the modern village of Alonia. The inland site continued to be inhabited after the coastal site was reoccupied after Archelaus' death in 399 BC. In the late 360s BC, during the establishment of the Second Athenian Confederacy, Pydna was among the cities seized by the Athenian general Timotheus to provide bases against Macedon and Chalcidice, but the Macedonian king Philip II, in the course of his campaign to subdue Greece, captured Pydna, probably in 357 BC, along with other Greek cities along the Macedonian coast. Pydna was treated harshly and garrisoned.

At the end of the 4th century BC Pydna briefly took centre stage in the violent political struggles that followed the death of Alexander the Great. Alexander's Epirot mother, queen Olympias (the first wife of king Philip II of Macedon), was a formidable woman and a dangerous opponent. She championed the claim to the Macedonian throne of her grandson, Alexander's posthumous child, and, to this end, engineered the deaths of the rival claimant Philip III Arrhidaeus (an illegitimate son of Philip II) and his powerful wife Eurydice. She thereby incurred the fury of Cassander, the son of the old regent Antipater, who had supported Philip III as the legitimate king. In the face of Cassander and a large army, in 317 BC Olympias and her royal retinue went to Pydna, whereupon the town was besieged by land and sea. Relieving forces from outside were persuaded to abandon Olympias, and many inside Pydna deserted to Cassander when a grievous famine incapacitated the besieged. In the spring of 316 BC Olympias surrendered to Cassander and was condemned to death in absentia by the general assembly of the Macedonians. Although she refused proffered exile, and Cassander's troops were too awestruck to kill her as ordered, Olympias was eventually murdered at Pydna by the relatives of some of her past victims. (The story of the siege of Pydna and the death of Olynipias is told in Diodorus Siculus, 19. 35–36, 49–51.)

Three important inscriptions of a later date were found in the vicinity of Pydna which refer to the tomb of Olympias and the nearby burial of descendants of the Aeacidae, the royal house of Epirus to which Olympias herself belonged. These texts indicate, surprisingly, that members of this family were living at Pydna in the 2nd century BC after the Roman conquest of Macedonia (see below), and that the tomb of Olympias was revered. Pydna therefore occupies a complex place in the Hellenic tradition: on the one hand, it witnessed the first of many brutal deaths of Alexander the Great's immediate family, but, on the other, it sheltered Alexander's maternal Epirot descendants long after the Antigonid dynasty of Macedonian kings had been destroyed by Rome.

The tomb of Olympias has never been found, and a suitable historical context for its construction can only be surmised, but burials in typical Macedonian chamber tombs are known from this area (for example the so-called Tomb of Pydna, an elaborate multiroomed chamber tomb probably dating from the end of the 3rd to the beginning of the 2nd century BC).

Pydna is best known as the site of the great battle between the forces of the Macedonian king Perseus (son of Philip V) and the Roman general Lucius Aemilius Paullus in June 168 BC. The decisive Roman victory, in which some 20,000 Macedonians were killed and some 11,000 taken prisoner, brought to an end the Third Macedonian War and had catastrophic consequences for the future of Macedonia and northern Greece. Perseus and his family were eventually captured and sent to Rome. The king marched in chains in Paullus' triumph and died soon after in captivity, thus ending the Antigonid dynasty of Macedonian kings. The vast wealth of Macedonia, especially the royal palace at Pella, was plundered and taken to Rome to be paraded in the three-day triumph (see Plutarch's *Life of Aemilius Paullus*, 30–35, for an account of the staggering number of art treasures borne along on waggons). Paullus embarked on a "reign of terror" by allowing Epirus to be sacked (as many as 150,000 citizens were enslaved) and condoning other reprisals, even as he himself embarked upon an archaeological tour of Greece. The kingdom of Macedonia lost its independence as a nation, was divided into four republics with elected magistrates, and paid heavy taxes to Rome. It became a Roman province in 146 BC.

The aftermath of the Battle of Pydna had two unexpected consequences for the spread of the Hellenic tradition. The first was that a young man named Polybius, son of Lycortas of Megalopolis in Achaea, was taken to Rome among the hostages deported after Pydna and became a close friend of the influential Roman Scipio Aemilianus, in whose circle he travelled widely and became privy to Roman political life at a high level. Polybius returned to Greece in 146 BC and became a distinguished historian. His *Histories* cover the years 264–146 BC (focusing on the period 220–168 BC) when Rome established its control over most of the inhabited world, which Polybius – given his background – saw as a unique event and sought to explain. His lucid narrative remains the main historical source for the period when Rome became master of the Greek east.

The spread of the Greek artistic tradition was also a by-product of the Battle of Pydna. Plunder brought to Rome made the Roman people aware of masterpieces of Greek art in the media of bronze and marble statuary, painting, and toreutic art. Greek art had a profound effect on the style of Roman art because of this contact. It is perhaps a historical irony that Paullus commandeered for a statue of himself a pillar erected at Delphi that was originally intended for a statue of Perseus. It was topped with a bronze equestrian statue of himself above a sculpted frieze depicting a battle between Romans and Macedonians, that is, a real rather than a mythological battle. The Greek tradition of this type of monument was adapted by the Roman general for his own purposes, and was perhaps the first in the great tradition of Roman historical reliefs.

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See also **Macedonia**

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PYLOS

City (or cities) in the western Peloponnese

Pylos now refers to four distinct places in the western Peloponnese, largely as a result of the attempts to identify the site of Nestor's palace as described by Homer. These are discussed from north to south.

In 1907 the German archaeologist Wilhelm Dörpfeld discovered and excavated three tholos tombs and the ruins of a building at *Kakovatos*, *c.*40 km south of Pirgos. He therefore concluded the site was Pylos as, following Strabo, many Alexandrian scholars had postulated that the Homeric site lay in Triphylia, an area also notable for the sandy beaches characterized in the epics.

The site at *Ano Englianos* (50 km south of Kiparissia) was identified in 1938 by a Hellenic–American expedition and excavated in 1939 and 1952–64 by Carl Blegen of the University of Cincinnati. A Mycenaean palace on a low hill with associated tholos and chamber tombs has been uncovered. It is the most comprehensible of all the Mycenaean palaces, though it is less impressive with its mudbrick walling and low elevation. The most important discovery was an archive room beside the entrance containing over 1000 tablets inscribed in the Linear B script; others and other types of administrative records were found elsewhere on the site. The palace was decorated with wall paintings in fresco; it had a central hearth in the megaron surrounded by four fluted columns in wood with clay chimney above. In the private wing was a bathroom with small tub. Copious evidence of pottery in functional contexts as well as stores of wine and oil contributes with the texts to a still unique picture of Mycenaean elite life. There are remains of a lower town at the base of the hill but little excavation has been carried out here. Since 1990 further study of the site and the region in general has been carried out by the American School of Classical Studies. Finds are to be seen in a small museum at nearby Chora with the most important items in the National Museum in Athens.

The rocky promontory of *Koryphasion* lies at the north end of the bay of Navarino. This bay (like that of Methone to the south) was, and still is, an important feature in the safe navigation of the west coast of the Peloponnese and the history of the area reflects this importance. Heinrich Schliemann in 1888 (after a preliminary visit in 1874) investigated the acropolis area, which was known as Old Pylos, and the cave of Nestor at the north end. In 1896 a French expedition also undertook some exploration in the cave. Ancient pottery (Middle Helladic to Roman) came to light. The small rounded bay to the north may have been the Mycenaean harbour. The southern tip of the promontory was fortified in 425 BC by the Athenians under Demosthenes and Cleon in order to cut off the Spartan contingent on the island of Sphacteria which closes the large southern bay on the west. The engagement is described in detail by Thucydides (4. 3ff.) and by Peter Green in a modern semifictional account. One of the shields, captured from the Spartans on their surrender after the dramatic siege of 72 days and later dedicated in the Stoa Poikile in Athens, came to light in the excavations of the Athenian Agora and is displayed in the Agora Museum.

ELIZABETH FRENCH

See also **Mycenaeans; Peloponnesian War**

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PYRRHO *c.*365–275 BC

Philosopher

Pyrrho of Elis is regarded as the founder of Greek scepticism. He is said to have studied with a certain Bryson and the Democritean Anaxarchus with whom he travelled to India in the campaign of Alexander the Great. His acquaintances with the "gymnosophists" and the "magi" are said to have influenced his thought. Pyrrho did not leave any writings, but some knowledge about his teaching comes from his disciple Timon of Phlius (*c.*325–235 BC), a literary man who wrote satires (*Silloi*) parodying all dogmatic philosophers and contrasting them with Pyrrho. Pyrrho did not establish a school of philosophy in the institutional sense. There were no successors after Timon, although ancient doxography tried to invent a succession down to Aenesidemus (1st century BC). Pyrrho's teaching as transmitted by Timon enjoyed a revival several centuries later with Aenesidemus and Sextus Empiricus (2nd century AD), who systematized it. Our main sources for his philosophy are a substantial *Life* by Diogenes Laertius (9. 61–108), fragments from the Peripatetic Aristocles' *History of Philosophy* (1st century AD?) preserved by Eusebius (*Praeparatio Evangelica*, 14. 8), and

the writings of Sextus Empiricus (especially his *Outlines of Pyrrhonism*).

However, these later sources do not always represent Pyrrho's teaching and there is some evidence that his later followers imposed a certain interpretation on his philosophy. Yet, given the state of evidence, it is extremely difficult to distinguish Pyrrho's original teaching from the later interpretations of it.

Pyrrho was primarily a moralist. His aim was to live a life of tranquillity (*ataraxia*). He apparently argued that everything was utterly indifferent. He maintained that there is no difference between good and bad things, just and unjust, and the like, and argued that it is only a matter of convention or habit that people believe things to be good or bad. Pyrrho was concerned to refute any natural basis for evaluating a thing as good or bad, but apparently he did not make the further move to dispute the possibility of knowing whether things are good or bad. On the contrary, he dogmatically asserted that things are neither good nor bad, and that they are only designated as such by convention. He seems to have expressed his ideas using a language such as this: "*x* is no more [*ou mallon*] this than y." Using such a non-committal language (already used by Democritus), he avoided making any value judgements. Yet this is not tantamount to the sceptic suspension of judgement (*epoche*) with which he was later accredited. Although Pyrrho may have distinguished sharply between *x appearing y* and *x being y*, he was concerned with the evaluation of things and not with the perceptual experience of them, i.e. with the question of the possibility of knowing them or with the nature or their apparent characteristics; and as far as their evaluation was concerned he found them indifferent. Dispensing with value judgements, Pyrrho liberated himself from all the anxieties that conventional value judgements impose on us and thus he was able to live a life of tranquillity and lack of affection (*apatheia*). Pyrrho's aim of achieving detachment from human concerns is confirmed by a number of anecdotes. He took no precautions against dogs, carts, and precipices and he was always saved by his friends. Again Pyrrho did not seem to act in this way because he disputed the evidence of the senses but because he considered that things were indifferent to him and that whatever might happen was of no account to him. Although Pyrrho found it hard to be entirely indifferent, he did attain a remarkable degree of imperturbedness.

So Pyrrho's main thesis was apparently neither epistemological nor metaphysical but primarily ethical. Yet his attitude was interpreted as a sceptical one by his followers, Timon, and by the later Pyrrhonians who relied on Timon. Timon reports that Pyrrho argued that things in themselves are indifferent, immeasurable, and inarbitrable. Hence our perceptions are neither true nor false, their testimony is unreliable, and we should think that something is no more this than that. The moral to draw was that we should not commit ourselves to views about the nature of things on the basis of our senses since things are elusive and undetermined. This attitude may lead us first to speechlessness and then to imperturbability, which finally makes up a good life – admirably achieved by Pyrrho. Timon obviously understands the "no more this than that" formula as concerning the trustworthiness of perceptions and beliefs. According to this interpretation indifference is a result of diffidence to perceptions and beliefs and not to the value of things themselves. This interpretation is patterned on the main idea underlying the history of Greek scepticism and it could easily be imposed on Pyrrho's teaching. Yet there might well have been aspects of Pyrrho's teaching that encouraged such an interpretation.

Pyrrho's scepticism enjoyed a revival with Aenesidemus, who seceded from the sceptical Academy under Philo of Larissa and appealed to Pyrrho's radical scepticism because he wanted to restore scepticism in its pure form, castigating Academic scepticism, which tended to become more and more dogmatic. With Aenesidemus and later Pyrrhonians the focus shifts clearly to epistemology. Aenesidemus disputed the anecdotes about Pyrrho's life and maintained that Pyrrho's philosophy was based on suspension of judgement. He also added that suspension of judgement may lead us to pleasure too. Aenesidemus is well known for the systematization of the Pyrrhonian arguments against holding a belief in ten modes. By means of these modes the Pyrrhonian sceptic would be able to question any dogmatic claim or demonstration and to show how ill-founded they were.

Many Pyrrhoneans after Aenesidemus were physicians of the empirical school of medicine. Most prominent among them was, of course, Sextus Empiricus. Sextus is for us today the major exponent of Pyrrhonian scepticism, but it is evident that he relies much on Aenesidemus. In his main expository work of Pyrrhonian philosophy, the *Outlines of Pyrrhonism*, Sextus makes interesting distinctions between the Pyrrhonian and the other philosophies and he devotes a long section on the significance of standard sceptical phrases.

Pyrrhonian scepticism, like all forms of scepticism, was polemicized by Christian intellectuals in the Middle Ages since it undermined Christian dogma. Photios obviously had access to some of Aenesidemus' works and he reports on them in his *Bibliotheca*. In the Renaissance Pyrrhonian scepticism, like most ancient philosophical systems, enjoyed a revival, but there is little trace of a considerable impact on modern Greek philosophy. Recently, though, Pyrrhonian scepticism has been found appealing and modern Greek intellectuals such as Nikos Demon have stressed that it offers an honest alternative to philosophical discussions.

GEORGE E. KARAMANOLIS

See also **Scepticism**

Biography

Born *c.*365 BC, Pyrrho of Elis was a pupil of Bryson and Anaxarchus. With Anaxarchus he travelled to India with Alexander the Great, where he was influenced by local sages. Pyrrho returned to Elis and lived quietly. He is regarded as the founder of scepticism but he left no writings and did not establish a school. Knowledge of his teaching derives from the writings of his pupil Timon of Phlius. He died in 275 BC.

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PYRRHUS 319–272 BC

Ruler of Epirus

Pyrrhus became king of the Molossians and created the kingdom of Epirus. As ruler of Epirus, he became one of the most respected military leaders of the Hellenistic age. He was revered in his own lifetime and later in antiquity for his expertise and military knowledge: Hannibal described him as the greatest of generals in both experience and ability. He is most renowned for his military successes which he achieved at the expense of heavy casualties to his own army – the so-called "Pyrrhic victory". However, while his career as a general and king was spectacular, he failed to fulfil the potential he promised. He fought against the rising power of Rome in southern Italy and in Greece against the Macedonian monarchs Demetrius Poliorcetes and Antigonus Gonatas. His career falls into three main phases: the establishment of his power in Greece (307–285 BC), his expedition in southern Italy (285–474 BC), and his return to and death in Greece (275–272 BC).

Pyrrhus, the son of Aeacides and Phthia, was born to a line that traced its ancestry back to Neoptolemus, son of Achilles. His career became wrapped up in the intrigues and intricacies of the early Hellenistic era known as the period of the successors. He became king of the Molossians in 307/06 BC while still only 12 years old when he was installed by Glaucias, king of the lllyrians, but he reigned for only five years before being expelled by Cassander in 302 BC.

In these early years Pyrrhus was embroiled in some way or other with Demetrius Poliorcetes, whom Deidameia, his sister, had married in 303 BC and with whom he sought refuge. In 302 BC he served as a lieutenant to Demetrius Poliorcetes and Antigonus Monophthalmus on what was to he the losing side at the Battle of Ipsus in 301 BC, but remained loyal to Demetrius, acting as caretaker in Greece.

In 299 BC Pyrrhus was handed over as a political hostage to Ptolemy I. He married Antigone, the daughter of Berenice and Ptolemy I, and with the support of Egypt and Agathocles, tyrant in Syracuse, in the early 290s BC he became co-regent of Epirus with Neoptolemus. He soon removed his co-regent and consolidated his Epirot kingdom. He founded a city named Berenice (modern Preveza) in honour of his mother-in-law. On his wife's death, Pyrrhus married Larnassa, daughter of Agathocles, and received the islands of Corfu and Leucas as a dowry. A series of additional political marriages secured further territory around Epirus.

Following his success against Demetrius Poliorcetes' lieutenant Pantauchus, Pyrrhus added territory to his kingdom. He was given the title "Eagle" by the Epirots and began to decorate his helmet with a high crest and goat's horns at the side. The rift between Demetrius – who had declared himself king of Macedon – and Pyrrhus was widened by the death of Deidameia. In addition, Demetrius married Pyrrhus' estranged wife Larnassa, and took control of Corfu.

The rising power of Demetrius was met by the concerted efforts of Pyrrhus and other Hellenistic kings in the early 280s BC. Ptolemy sailed to Greece "to persuade the cities there to revolt", Lysimachus invaded the north of Macedonia from Thrace, and Pyrrhus attacked southern Macedonia (Verroia). The kingdom of Macedon was partitioned by Pyrrhus and Lysimachus, but Pyrrhus' successes were short-lived. The Aetolians shifted their support to Lysimachus, and Ptolemy ended his aid to Pyrrhus, who was forced to withdraw back to Epirus.

In 284 BC a request came from the people of Tarentum (and other Greek cities in Italy) to Epirus for help against Rome. Pyrrhus took up the invitation and fought for the cause of Greek cities in southern Italy. Early success at Heraclea with an army of infantry, cavalry, and elephants secured the support not only of Greek cities in Italy but also Italian tribes, the Bruttians, Lucanians, and Samnites. Pyrrhus then marched on Rome. Another victory was secured at Asculum in 279 BC, but again with some loss on the Greek side. Before he was able to consolidate these successes, he was distracted by another appeal, this time from the city of Syracuse in Sicily. There he fought in 278 BC the allies of Rome, the Carthaginians, and the Mamertines. In 276 BC Pyrrhus was recalled to southern Italy, was defeated by Rome in 275 BC, and returned to Epirus with a severely depicted army. He left a garrison in Tarentum but was never to return.

In Greece Pyrrhus embarked on a campaign in Macedonia in 274 BC before marching into the Peloponnese in 273 BC to respond to an appeal from Cleonymus. At Megalopolis he declared that he was fighting to liberate the Greek cities from Antigonus Gonatas, king of Macedon. His intentions are doubted by the ancient sources. Whatever Pyrrhus' plans, they were ended abruptly in 272 BC. During an attack on the city of Argos, he was killed: struck on the head by a tile thrown from the roof, he was beheaded by one of Antigonus' men.

Pyrrhus fought on behalf of the Greek cause for the cities of southern Italy and Sicily and had tried to liberate Greek cities from the king of Macedon, Antigonus Gonatas. At the time of his death he had established Epirus as a major power, and he had transformed Dodona into a major cultural outpost. However, his lasting legacy to Hellenic culture is his military exploits. His prowess as a military leader went before him, but his inability to secure victory without heavy losses has outshone his strategic and tactical expertise.

GRAHAM OLIVER

Biography

Born in 319 BC, Pyrrhus became king of the Molossians at the age of 12 but was expelled by Cassander in 302. He served Demetrius Poliorcetes but in 299 was given as a hostage to Ptolemy I. With the help of Agathocles of Syracuse he became ruler of Epirus and founded Berenice (modern Preveza). In 284 he supported the Greek cities of south Italy against Rome but was defeated in 275. He died at Argos in 272 BC.

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PYTHAGORAS

Philosopher and mathematician of the 6th century BC

It is extraordinarily difficult to make any definite statement about Pythagoras, although he, and the philosophical tradition he founded, was clearly of the greatest importance in the development of Greek thought. He was born in Samos in the first half of the 6th century BC, son of Mnesarchus, a gem engraver. He moved to Croton in southern Italy around the middle of the 6th century, supposedly to escape the tyranny of Polycrates, and there formed a sort of society of followers (''Pythagoreans''), which involved itself in the politics of the Greek cities of Italy until there was a violent reaction, the Pythagoreans were massacred, and Pythagoras was driven from Croton; he died an exile in Metapontum. Nevertheless, there is clear evidence that in some places the Pythagoreans remained politically active in Italy well into the 4th century BC. The earliest reports represent him (sometimes in a negative sense) as a sage and wonderworker; he was reputed to have had a golden thigh, the ability to be in two places at once, and the power of prophecy. By the time that reasonably reliable reports become available (from the late 5th century BC onwards), he had already become a rather shadowy figure to whom a great variety of ideas could be attributed (and the situation is further confused by the reported practice of his followers of attributing all of their own ideas to him); Aristotle, who wrote an account (now lost) of Pythagoras, in his surviving works prefers to discuss ''the Pythagoreans'' rather than Pythagoras himself. Nevertheless, the fact that there was a group of serious thinkers who called themselves Pythagoreans (e.g. Philolaus, who composed a cosmology of which fragments survive, and Archytas, who did impressive work in mathematics and harmonics) confirms that Pythagoras' contribution to the development of thought, whatever it was in detail, was substantial and fruitful.

The ideas attributed to Pythagoras fall into two quite distinct categories (and indeed some ancient writers believed that this meant that he had two different sets of followers). First, he is said to have to have been a religious teacher, whose doctrines were based on the idea that souls migrate to new bodies (both human and animal) after death, and that by observing a series of rules and prohibitions the believer may achieve a better reincarnation in future lives. The most notorious of these rules were vegetarianism and abstinence from beans, and among others mentioned by various authorities are not picking up things that fall from the table, not touching a white cock, and not breaking a loaf of bread; they were as inexplicable in antiquity as they are now, and various attempts were made to interpret them allegorically as containing philosophical and moral truths.

It is, however, for his supposed contributions to mathematics and science that Pythagoras is remembered today. He and his followers are credited with making a crucial contribution to the early development of Greek mathematics, but it is very difficult to say precisely what this was, since it is to non-Pythagoreans (such as Thales and Anaximander) that most actual mathematical developments are attributed; the story that Pythagoras discovered the famous proof of the proposition that the square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the other two sides, the so-called theorem of Pythagoras, is found no earlier than Plutarch, who wrote in the 1st and 2nd centuries AD quoting one Apollodorus as his source (Plutarch tells us that on making the discovery Pythagoras sacrificed an ox to celebrate), and it is probable that the proof most often used today was devised by Euclid (*Elements*, 1. 47) rather than Pythagoras. Aristotle reports that the Pythagoreans claimed that ''things are number'' (though he could not understand what they meant by it), and certainly number played an important part in the Pythagorean picture of the world. Pythagoras is said to have discovered that the concordant musical intervals are produced by strings under the same tension whose lengths are in simple numerical ratios involving the first four integers (1:2 produces the octave, 3:2 the fifth, and 4:3 the fourth). Whether or not this is true (the reports come only in late authors), it began a process of applying the principles of ratio and harmony to the structure of the cosmos. So, the first four integers, represented by dots and arranged in a triangle, and their sum, 10, were thought to have special significance, and the Pythagoreans swore oaths by the *tetractys*, the diagrammatical representation of the relationships between these numbers in the form of an equilateral triangle. In some way, the generation of numbers, beginning with an original One, was the key to the understanding of the universe; the number of heavenly bodies was assumed to be 10 (because 10 was the perfect number), and their movement generated a musical harmony (which only the enlightened, like Pythagoras, could hear). Whatever Pythagoras' role in all of this, the idea that mathematics was fundamental to the universe, and that its study brought spiritual benefits, was undoubtedly a factor in encouraging the development of Greek mathematics beyond purely practical applications.

By the end of the 4th century BC Pythagoras had come to be regarded as the archetypical philosopher, and his supposed ideas had been incorporated into the mainstream of philosophy by the followers of Plato and Aristotle. We hear of very few philosophers who identified themselves as Pythagoreans, although preachers promulgating a popularized form of his religious ideas appear in new comedy. From the 3rd century BC onwards, however, he was sufficiently important a figure for a considerable number of forged documents to be produced under his name, a process that accelerated in the 1st century BC, when the school was refounded (the revived school is referred to by modern scholars as Neopythagoreanism, but is really a form of Platonism with a mathematical orientation); this later recreation and reinterpretation of Pythagoreanism makes the task of reconstructing the doctrines of the early school considerably more complicated. Later, with the rise of

Christianity, Pythagoras became a sort of pagan counter-Christ, and Iamblichus' *On the Pythagorean Life* (4th century AD) presents him as a semidivine sage and miracleworker, to whom the philosophical basis of a challenge to Christianity could be attributed. Interest in him continues well into the Byzantine period, and much of our information on later Pythagoreanism depends on the work of Michael Psellos (1018–after 1081), to whom we owe the survival of most of Iamblichus' work.

RICHARD WALLACE

See also **Mathematics**

Biography

Born in Santos in the first half of the 6th century BC, Pythagoras moved to Croton in south Italy in the mid-6th century. There he founded a society of "Pythagoreans" whose members were involved in the politics of Magna Graecia. His name is associated with religious teaching and important contributions to mathematics and science. He died in exile in Metapontum.

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RELIGION

In attempting to describe Classical Greek religion, it is necessary to state at the outset that the Greeks themselves had no word to describe our concept of ''religion'', no comparable conception of a sphere of life marked out from the ''political'' or the ''secular''. Greek religion, moreover, did not – like modern Christianity – focus upon a set of dogmas or principles to which a man or a woman consciously chooses (or declines) to adhere. Nevertheless, even without a body of sacred texts, without an organized Church with the professed purpose of ensuring uniformity, the Greeks shared a roughly coherent set of beliefs and ritual practices that merit description together.

Greek religion was polytheistic. A core group of so-called Olympian divinities (those who were held in myth to live on Mount Olympus) was often numbered 12, but the identity of the 12 varied: the Parthenon frieze featured Aphrodite, Apollo, Ares, Artemis, Athena, Demeter, Dionysus, Hephaestus, Hera, Hermes, and Zeus. Though some of these divinities would have been familiar to all Greeks – Zeus, Demeter, and Hermes, for example – there was great variation both in the deities worshipped and in the relative emphasis given to different deities in different Greek cities and regions. Poseidon was associated particularly with the city of Corinth, Athena with Athens, Hera with Argos and Samos. Different cult titles or epithets were applied to divinities in different areas: Athena Polias (or ''of the city'') in Athens or Zeus Lykaios (named after a local mountain) in Arcadia.

These relationships between cities and divinities were not exclusive or monogamous ones: Poseidon also held a central place in Athens, Athena in Sparta (even under the title ''Polias''). Other local deities, however, such as the Arcadian goddess Despoina (or ''mistress'') or the Spartan Helen (though they may have shared certain attributes, or even sometimes fused, with Panhellenic deities), were more or less restricted to particular localities. In addition, there were a large number of lesser divinities such as nymphs (believed to inhabit and somehow to embody rivers, trees, and mountains) and heroes. The latter, a particularly disparate group, included the Panhellenic Heracles (also worshipped as a god); mythological characters, for example from the Trojan War; and historical individuals worshipped after their deaths, such as the Spartan Brasidas, the antagonist in the Peloponnesian War of the Athenian historian and general Thucydides. In Athens, the city that is best documented, we know of the existence of hundreds of heroes.

How are we to understand this confusion of deities? Were the Argive and Samian Hera, say, or the Spartan and Athenian Athena Polias, one god or two? The answer is probably that they were believed to be both different and the same. That the names of so many divinities, and the stories of their exploits, were common across the Greek world clearly means something, even if the devotees of a god's different cults were distinct. In his odes in honour of the victors of Panhellenic festivals, when a victor's home city possessed no cult of the Panhellenic deity in question, Pindar addressed himself to a different local manifestation of that god. In describing an instance of divine intervention, Herodotus will sometimes ascribe it at one moment to a named divinity, at another to a generalized divinity, ''the divine'', or ''the god''. A powerful principle in Greek religious thought was that the nature of the gods was fundamentally unknowable, and that the distinctions between divinities, and their characterizations through myth, were traditional, even arbitrary. Far from leading to widespread scepticism concerning the existence of the gods, this ''uncertainty principle'' seems, however, to have cushioned the individuated gods of myth and ritual from challenge.

The relationship between men and gods in Greek religion is often portrayed in modern accounts as more contractual than personal: the proper observation of ritual duties – especially of sacrifice, accompanied by prayer – was rewarded by good fortune in the form of, for example, a good harvest, the birth of children, or through negative blessings such as the absence of disease or a journey free of shipwreck. (The idea of personal salvation after death was not widespread, being limited largely to the mystery cults such as that of Eleusis.) Though a greater emphasis perhaps was given to ritual than in many other religious systems, the exchange was not quite so crudely commercial. In literature emphasis is often placed on the spirit in which propitiation of the gods was performed. A man's past actions may make his sacrifice unwelcome. Xenophon's account in his *Anabasis* of his journey into Asia with a group of Greek mercenaries, the so-called Ten Thousand, reveals also an extraordinarily warm piety.

Other differences between Greek religion and Christianity have also perhaps been exaggerated. The existence of sacred texts or an organized Church demonstrably fails to ensure more than a degree of uniformity in belief and practice. Though there was never in the Greek world any identifiable core set of beliefs to which adherence was demanded, there were limits to diversity and toleration: a number of prosecutions for impiety took place in the late 5th and early 4th centuries BC in Athens; the grant of divine honours to rulers such as Alexander encountered opposition. Though we cannot talk in a Greek context of "belief" in the sense of a personal leap of faith, the reality of Christian belief reveals a number of similarities to Greek religion. Just as Christian belief in an everloving and just god must explain the appearance of injustice, so Greek belief in the gods' unfailing response to propitiation must incorporate similar strategies for explaining exceptions. A similar pattern can be seen underlying other areas of Greek belief. The belief that gods punish unjust or impious actions – there was a considerable overlap between the ideas of the pious (*hosion*) and the just (*dikaion*) – is maintained by means of a number of such "let-out clauses": that retribution may occur through human agency, that it may follow immediately or be delayed even for a number of generations, or that, while the divine is, in general, just, it may also be capricious. The Greek belief in the reliability of oracular prophecy (from shrines such as Delphi, Dodona, and Didyma) similarly relies on a number of explanations for prophecies that are patently never fulfilled: that the correct interpretation was not discovered, that undue influence had been exerted (or even that the priestess had been bribed), that the consultant at the oracle had committed some error in procedure, or that some prophecies are simply misleading or dud.

A consequence of the lack of a clear separation of "sacred" and "secular", the lack of a distinction of Church and state, is that it is perhaps less easy to generalize on the political implications of Greek religion. A number of activities or aspects of life that we would casually class as secular were in the Greek world coloured or shaped by religious practices or beliefs. The political relationships between Greek cities were regulated through religion: when one city founded a colony, the flame for the sacred hearth of that colony was taken from its mother city; the relationship of colonizer and colonized was a relationship of religious duty. Treaties between cities, termed in Greek *spondai* (or "libations"), were marked by oaths sworn by the gods, accompanied by sacrifice: Thucydides records how in the Peloponnesian War the Spartans ascribed a number of military reversals to their breaking of a treaty. Many official aspects of city life – politics, the administration of justice – were touched by religion: as the comic playwright Aristophanes reveals through a parody, the assembly meeting started with a prayer. Oracles and prophecies were also clearly introduced into arguments in the assembly. Greek tragedy and comedy themselves were performed in the context of religious festivals such as the festival of Dionysus. Though there were professional oracle-mongers and diviners, priests never formed a separate caste in Greek society. Rather they were drawn from the population at large, sometimes by virtue of family, but increasingly by election or by lot. The magistrates of Athens or the kings of Sparta performed functions that we would classify as a mixture of sacred and secular.

Religion was also central to the Greeks' perception of their identity in relation to foreign peoples and one another. The Greeks represented their gods as universal and found equivalents for them among foreign peoples, saying, for example, that Dionysus was the Greek name for Osiris or that the Ethiopians worshipped Zeus and Dionysus "alone of the gods". There was consequently no need felt to "evangelize" foreign peoples; for a Greek to proclaim a "war of religion", a crusade, was unthinkable. Herodotus describes as madness the action of the Persian king in mocking the rites of the Egyptians. Nevertheless, it is arguably no coincidence that such, often imaginary, religious crimes are ascribed to foreign peoples (so-called "barbarians") rather than to Greeks. Stories of the punishment of such actions are often reported with relish. Moreover, though they may have espoused an ideal of toleration of foreign practices, and though they may have thought most foreign gods had equivalents in the Greek pantheon, the line was drawn at common worship. Though the long-standing Greek god Dionysus was perceived as of eastern origin, genuine newcomers such as Adonis, Sabazius, Bendis, and Asclepius (from within the Greek world) were assimilated into the cult system of a city only with difficulty and some reluctance. Panhellenic festivals such as the Olympic Games were closed to non-Greeks. Those Greeks who settled in Egypt built their own temples: the Hellenion for common use and other shrines of Zeus, Hera, and Apollo for settlers from Aegina, Samos, and Miletus respectively.

As this last example demonstrates, the citizens of different Greek cities were conscious of their distinct religious identities. Just as the Olympic Games were barred to non-Greeks, so certain city festivals were barred to non-citizens. Citizens belonged, however, to more than one religious community: phratries (or brotherhoods – groups based on, at least perceived, common descent), tribes, demes (or villages), and families, all had religious rituals associated with them and all were doubtless the focus for some feeling of community.

Perhaps the hardest issue in the study of Greek religion is the assessment of change. During the 5th century BC there was a particular upsurge in religious scepticism: the development of natural, "scientific", explanations of disease or madness, observations of the injustice of the gods, that the gods were created as a form of social control, or that the belief in divination was a popular superstition. It is important, however, not to see scepticism on such issues as heralding a general or widespread reaction against religious belief. A certain degree of questioning and doubt was integral to Greek religion in all periods. Many of these sceptical positions – the injustice of the gods, for example – were rooted in traditional attitudes. Such changes as occurred as a consequence of events – the failure of Athenian diviners during the Peloponnesian War, for example – were probably largely piecemeal. The Greeks to a large extent had prepared answers for such eventualities: most diviners are charlatans; not all forms of divination are equally reliable. There is no reason, or evidence, for supposing that such reversals sparked a general decline in divination or in religiosity. Perhaps the clearest changes in Greek religion occurred as a consequence of Alexander's conquest of the Persian empire. Not only were new gods such as Isis and Serapis absorbed, but the pattern of worship changed in response to new political realities: Greek cities came to terms with the powerful and distant rulers of

the Hellenistic kingdoms, or with the growing power of Rome, by integrating them in their pantheons as gods.

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See also **Afterlife; Cult; Divination; Festivals; Gods and Goddesses; Heroes and Heroines; Oracles**

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RHETORIC

Rhetoric is commonly understood to have to do with persuasive speaking – when, that is, it is not thought of as verbal deception or coercion. It is important to realize, however, that rhetoric has a long and complex history as a discipline taught in schools and as a way of doing things with words in the public sphere.

As a cultural practice, the resolution of disputes and the formation of policy decisions by means of discourse can be traced back to preliterate Greek society, as is evident from numerous episodes in epic poetry, for example the assembly early in book 2 of the *Iliad* and the debate at the beginning of *Odyssey* 2. From these it is clear that there were strict conventions governing the conduct of debates, and of what was considered adequate and relevant evidence. From the mid-5th to the end of the 4th century BC, one can see the development in Athens of competing systems for the teaching and practice of speaking persuasively in court and in public assemblies, where institutional frameworks had been erected in the wake of judicial and political reforms. An old tradition has it that the teaching of rhetoric began in Sicily; but it is clear that the earliest significant lessons were given in Athens by two non-Athenians, the so-called sophists Protagoras and Gorgias. We see, next, in Plato's *Gorgias* and *Phaedrus*, a scathing critique of sophistic teaching, which, in Plato's view, would include that of Isocrates. Plato's pupil Aristotle composed a systematic treatment of rhetoric which takes issue with Plato and the sophists alike. During this same period, independently of the others, Anaximenes of Lampsacus composed another handbook, the *Rhetorica ad Alexandrum*. Its orientation is quite pragmatic, but its origins and intended audience are not clear.

Reduced to their basic elements, the rhetorics produced in Classical Greece differ from one another in important ways. The sort of rhetoric taught by Gorgias, so it seems from Plato's testimony and from the *Encomium to Helen* attributed to Gorgias, gave almost unlimited power to the speaker, who used language as a means to condition the emotions of his audience to achieve its compliance. Plato, by contrast, allowed as legitimate only a rhetoric that communicated to its audience truth arrived at by means of dialectic. The rhetoric of Aristotle's *Rhetoric* is one based on a method of arguing from "what usually happens" – i.e. "probabilities" – using rhetorical syllogisms (*enthymemata*) to provide audiences with grounds for judgement on legal, political, and moral issues. For Isocrates, the teaching of rhetoric would produce eloquent speakers with the ability to bring about consensus (*homonoia*) among the citizens of the state. The Gorgianic and Platonic models are both unilateral and asymmetric, because the only function of the audience is to attend to the speaker. The Aristotelian and Isocratean models of the speech situation tend more towards a collateral relationship between speaker and audience; and it is the audience that provides the grounds for argument and makes the decisions. These four notions of rhetoric – all developed in the same place over less than a century – have persisted down to our own time, sometimes in competition with one another, with one becoming dominant at one time, another at another time.

Only Isocrates continued to exert any significant influence over succeeding generations in antiquity, and only in the context of a rhetoric curriculum that had been developed in schools all across the Greek world after the conquests of Alexander the Great as part of the standard programme of basic education, the *enkyklios paideia*. This curriculum, designed to train boys to succeed in a range of discursive activities from letter writing to diplomacy to the practice of political and forensic oratory, was the one inherited both by Cicero (see, e.g., *De Oratore*, 3.

23ff., 59ff., 86ff.; and *Epistulae ad Familiares*, 1. 9), who continued to dominate rhetorical education in the west until well into the 17th century, and by Hermogenes (d. AD 225), whose refined versions of it virtually defined rhetoric in the eastern, or Byzantine, tradition.

The school curriculum consisted of, first, a set of elementary exercises (*progymnasmata*) and, at a later stage, declamations on assigned questions, usually of a fictitious nature. The lessons that were inculcated and repeated performance aimed at producing "the good man skilled in speaking". The art, as it was taught, consisted of five parts: invention (the techniques for discovering arguments); arrangement (consideration of order and amplitude in making the argument); expression (deploying the techniques for composition and ornamentation); memory (techniques for remembering both one's own speech and the body of accepted opinions on every subject); and delivery (the rules for the control of voice and gesture). At the heart of the process of invention is the so-called *stasis* system, a methodical way of determining the issue in dispute – is it the issue of fact, of definition, or of quality? – and of developing appropriate argumentative strategies. Students were taught a standardized format for speeches, usually based on a conventional courtroom argument, that consisted of the exordium (in Greek, *prooimion*), or introduction; the narration (*diegesis*); the argument (*pistis*) and refutation (*lysis*); and the peroration (*epilogos*). With minor variations, this standard format persisted in school rhetorics, in both the Latin and Greek traditions, throughout late antiquity, the Middle Ages, and the Renaissance.

To the school curriculum, Cicero (or perhaps his rhetoric masters) added a philosophical dimension borrowed from Academic scepticism as taught by Carneades, the idea that, in the absence of certain knowledge, it is necessary to be able to produce the arguments on both sides (*in utramque pattern*) of an issue. An issue addressed by this "multivoiced method" (*multiplex ratio dicendi*), *controversia*, is resolved only in so far as one decides to adopt one of the positions in conflict as having more *probabilitas* or to modify it or to formulate a new position. It is precisely this method that Cicero uses in *De Oratore* and in such philosophical works as *De Natura Deorum*. As with Isocrates, "philosophy" is assimilated to rhetoric.

The persistence of the Isocratean–Ciceronian tradition in the west is evident in such works as Augustine's *De Doctrina Christiana* (completed *c.*AD 325), the last book of which is devoted to the principles of eloquence in a Christian setting; the brief dialogue on rhetoric composed by Alcuin (*c.*800); and the many handbooks on preaching, letter writing, and poetic composition that were in circulation during the later Middle Ages. In the east we find the tradition of Greek eloquence as defined by the likes of Isocrates and Demosthenes and systematized by Hermogenes in the productions of the so-called Second Sophistic, the works of Church Fathers, and in Byzantine diplomatic and court literature up to the fall of Constantinople in 1453.

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See also **Education; Second Sophistic; Sophists**

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RHODES

Island in the Dodecanese

The largest of the Dodecanese group of islands, Rhodes lies in the eastern Aegean a few miles off the southwest corner of modern Turkey. Habitation on the island extends back as far as the neolithic period, and pre-Greek and early Greek settlements are attested in the 2nd millennium BC. The Minoans, a highly civilized seafaring people from Crete, had founded a trading post at Trianda (on the west coast about 9 km south of modern Rhodes town) by the 16th century BC, and the Mycenaean Greeks who succeeded the Minoans as the main power in the Aegean appear to have established prosperous colonies on the island some two centuries later, judging from the presence of chamber tombs and rich finds from the cemetery near Ialysus (not far from Trianda).

After the collapse of the Mycenaean civilization, the Dodecanese islands were inhabited in the so-called Dark Age of Greece by Dorian-speaking Greeks emigrating eastward from mainland Greece. The island had various names in antiquity, but finally "Rhodos" (in Greek) became standard. Mythological legend held that Rhodos was the child of the sun god Helios and the nymph Rhoda. Other traditions associated it with the Greek word for rose, *rodon* (whether or not this etymology is true, the rose appeared as a symbol on Rhodian coinage in the Classical and later periods, and Rhodes is popularly known as "the Island of Roses" in modern times). Three city states were founded: Ialysus (see above), Camirus (also on the west coast some 35 km south of Rhodes town), and Lindus (about halfway down the east coast). These three cities are mentioned in the Homeric Catalogue of Ships as sending ships to the Trojan War (*Iliad*, 2. 656).

The cities flourished in the 7th–6th centuries BC and, like many other cities in archaic Greece, sent out colonies (Lindus founded Phaselis on the east coast of Lycia *c.*690 BC, and, in association with Cretans, Gela on the south coast of Sicily in 688 BC). The cities on Rhodes were on the whole ruled by tyrants from local aristocratic families. The most famous of

these was Cleobulus of Lindus in the early 6th century BC, who was one of the "Seven Sages" – men renowned for their wisdom in political and practical matters – in Greek literary tradition (an impressive round structure on the headland just north of Lindus is traditionally known as the tomb of Cleobulus, but it is of pre-Hellenic date).

Rhodes was caught up in the political situation affecting the rest of the Greek world in the 5th century BC. In common with the rest of east Greece, the island became subject to the growing power of the Persian empire in 490 BC. After Greece – under the leadership of Athens – finally defeated the Persian empire in 479 BC, the cities of Rhodes, like most of the other Greek cities, joined the Delian League, a confederation of cities which paid tribute to Athens in return for protection against a possible new Persian threat (all three cities of Rhodes are recorded in the Athenian Tribute Lists). The Rhodian cities remained under Athenian influence until they revolted in 412/11 BC during the Peloponnesian War and switched their allegiance to Sparta. The revolt is often attributed to the encouragement of a prominent aristocrat from Ialysus named Dorieus, who had been exiled by Athens some years previously and had turned to Sparta.

The most important political event in the history of ancient Rhodes occurred in 408/07 BC, when the three independent city states formed a single community and founded a federal capital city, also called Rhodes, at the north tip of the island. The three old cities thereby lost their independent status, and together formed a single political unit run by federal officials and legislative bodies. The reasons for this dramatic political rearrangement are not known, but an economic motive seems likely. Rhodes island occupied an ideal position between east and west, and a city at the northern tip of the island provided easy access to both seas. The economic prosperity of Rhodes in years to come proves the wisdom of the synoecism. The old cities continued to be inhabited, had local governments, and controlled their own local religious cults, but, from now on, the capital city of Rhodes controlled the federated island's foreign policy.

The political life of Rhodes in the 4th century BC is complex. A revolt from Sparta in 395 led to the return of Athenian influence, despite continuing internal unrest, and within the next decades to the establishment of a democratic government which was the hallmark of Rhodes throughout the rest of its independent life. It was during the 4th century that Rhodes consolidated overseas territory and incorporated it into the Rhodian state. This consisted of the so-called *peraia* ("the land opposite"), the area of southwest Turkey immediately opposite Rhodes, as a result of which Rhodes gained a firm foothold in Asia Minor between Caria and Lycia. Various nearby islands were also incorporated (Chalki, Symi, Tilos, Nisyros, Karpathos, Kasos, and Megiste [Kastellorizo]). As an Athenian ally, Rhodes joined the Second Athenian Confederacy in 378/7 BC, but the growing influence of the Persian satrap Mausolus of Caria upset the political equilibrium in the eastern Aegean. His meddling led to the "Social War" against Athens in 357, and the consequent emancipation from it of several former allies, including Rhodes. Nonetheless, Rhodes remained under the domination of Caria until the arrival of Alexander the Great in 332. The island submitted to the conqueror, and its "liberation" from Persian influence consisted in the installation of a Macedonian garrison whose removal after Alexander's death was a cause for celebration.

Alexander's conquests and the activity of his successors created the conditions in which Rhodes was to thrive. The foundation of Greek cities in the new Hellenistic empires transferred the centre of trade to the east. The new trade routes converged on Rhodes, and it rapidly became the chief commercial entrepot of the Levant, with consequent enormous economic prosperity. Furthermore, Rhodes managed to maintain its system of democratic government and independence even in the face of the warring Successors.

When the Successors Ptolemy of Egypt and Antigonus Monophthalmus were engaged in a power struggle in the eastern Aegean, Rhodes refused to join Antigonus against Ptolemy, thereby preserving its alliance with Egypt (Antigonus was interested in Rhodes because of its naval capacity – a considerable navy, impressive harbour installations, and shipbuilding timber). This was the occasion which led in 305/4 BC to the famous year-long siege of Rhodes by Antigonus' son Demetrius, who was to receive his nickname "Besieger" (in Greek, "Poliorcetes") as a result of this action; the siege is vividly described in Diodorus Siculus, 20. 82–88, 91–100. Demetrius did not take Rhodes despite ferocious assaults by land and sea, and in thanks for their salvation the Rhodians erected a 33-m-high bronze statue of their patron god Helios which was paid for from the sale of Demetrius' abandoned siege equipment. The Colossus of Rhodes was one of the most famous statues of all antiquity and was reckoned as one of the seven wonders of the ancient world. It stood until toppled by an earthquake in the early 220s BC.

In the first half of the 3rd century the friendship between Rhodes and Egypt was the mainstay of Rhodian policy and responsible for its rise to pre-eminence in both the political and commercial spheres. Under the benevolent eye of Egypt, Rhodes began to play an active role in the Aegean, beginning its crusade against the marauding pirates who threatened economic stability. Rhodes kept the pirates contained through special naval techniques, and this activity enhanced its prestige and the confidence felt towards it by seafaring communities.

Some time around the middle of the 3rd century, Rhodes appears to have distanced itself politically from an Egypt which had suffered loss of face on land (in the Chremonidean War) and sea (at the battles of Cos and Andros) at the hands of the Antigonids. For the rest of the 3rd century Rhodes stands on its own feet as the paramount Aegean power, stepping into the position of naval supremacy vacated by Egypt. At the same time these political differences do not seem to have led to a rupture of commercial relations between Rhodes and Egypt, since these ties were economically essential to both. Rhodes continued to win for itself the recognized position as protector of the island communities, and this was achieved when it refounded the "Nesiotic League" ("League of the Islanders") by the end of the 3rd century. The earthquake of the early 220s which toppled the Colossus (see above) also destroyed much of the ancient city. Significantly, all of the Greek kings of the east and west contributed lavishly to the cost of reconstruction, and even assisted in money and kind for the rebuilding of the Rhodian fleet – a sure sign of the high prestige and pacific intentions of the independent democracy at the time.

At this period Rome began to interfere in Greek affairs, and Rhodes was an active Roman ally in the wars against the Macedonian Philip V and the Seleucid Antiochus III. As a result, the Treaty of Apamea in 188 BC rewarded Rhodes with the possession of Caria and Lycia. Internal dissension between the pro- and anti-Roman factions within Rhodes led to political equivocation, for which Rhodes paid the price in the aftermath of the Third Macedonian War when it was deprived of Caria and Lycia. It was further punished in 167 BC by Rome's declaration of Delos as a free port, which gave Rhodes overwhelming competition as the centre of transit trade in the Aegean. Rhodes finally became an ally of Rome in 164 BC, thereby ending its political independence. From then on it shared the consequences of Roman intervention in the east, notably the Mithradatic War of 88 BC, and the Roman civil wars of the second half of the 1st century BC.

Ancient Rhodians famous for their cultural achievements include the 2nd-century BC Stoic philosopher Panaetius and his pupil Posidonius (a Syrian granted Rhodian citizenship); the sculptor of the Colossus of Rhodes, Chares of Lindus, a pupil of the great Greek sculptor Lysippus of Sicyon; and the 3rd-century BC epic poet and author of the *Argonautica*, Apollonius Rhodius (who may have been a native of Alexandria who settled in Rhodes).

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See also **Dodecanese**

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ROMAN PERIOD 31 BC–AD 330

Long before Roman political control of Greece began in the 2nd century BC, contact between Greece and Rome had already wrought cultural and economic changes in both regions. Scholars have found evidence of a Greek presence in Italy from as early as the Mycenaean era and throughout the period of colonization in the 8th and 7th centuries BC. Within 50 years of colonizing southern Italy and Sicily (Magna Graecia), Greek communities began to engage in a flourishing trade and an exchange of ideas with the Italians. The Romans adopted some Greek gods, their temples took on aspects of Greek architectural styles, Greek artisans produced pottery for the Italian market, and Greek historians wrote about the origins of the Italians and Romans. Writers such as Timaeus made genuine efforts to understand the history of Italy, in light of the growing power and influence of Rome. While these writers tended to Hellenize Roman history and origins, their views were accepted by the Romans themselves.

Gradually there began a fusion of Greek and Roman cultures. The Romans entered into more formal relations with the local Greek city states, while the mainland Greeks became actively involved in conflicts in Magna Graecia. The merging of Roman and Greek politics and culture began in earnest with the military interference in Greek affairs by the Romans, in particular during the Achaean War (146 BC). After the Achaean War Corinth was levelled, vast amounts of booty were shipped to Rome, the men were massacred, and the rest of the inhabitants sold into slavery – leaving the once bustling town empty and in ruins. The events that followed this war are unclear, but over the course of the next century these events slowly reshaped the Hellenistic east into provinces of the expanding Roman empire, and Greek city states into Graeco-Roman municipalities.

This contact, while certainly important politically and economically, at first had only limited influence on the essence of Greek civilization. The Greeks themselves, and the Romans too, had a profound respect for the language, literature, and culture of the Hellenic world, which would remain unshaken by political conquest, devastation by Roman legions, and economic turmoil of the 1st century BC. Elite Romans continued to send their sons to Greece for the finishing touches on a proper education. Cicero and then his son went to Athens, as did Ovid and Horace – who saw that Greece had captured its captors ('Graecia capta ferum victorem cepit et artis intulit agresti Latio' [*Epistulae*, 2. 1. 156–57]). Colonies of veterans were founded, especially by Julius Caesar and Augustus, some nine or ten in Greece, and included the revival of cities such as Patras and Corinth. Yet these colonies were quickly assimilated to Greek culture, and the Greek language superseded Latin. Indeed, the administrative language in the east generally was Greek; edicts and legal proceedings were in Greek. The eastern legions were largely recruited from among the Greek-speaking peoples. Roman citizenship remained rare in the Greek east (until AD 212 when Caracalla proclaimed the *Constitutio Antoniniana*), and only a few citizens were created by their enrolment in these legions.

This is not to say that no Romanization occurred. Greek art, which the Romans greatly admired, was influenced by Roman patronage. The Romans showed their affection for things Greek both by carrying off treasures to Italy and by buying copies of the Classical and archaic works that were in vogue. But the Romans also controlled the economic life of Greece by providing a market and consumer demand thus dictated artistic output. Among the distinctive forms of Roman art was realistic portraiture, rather than the pure idealization found in Greek art.

New subjects were explored by Greek artists as a result of Roman interest in recreating a strong sense of psychological reality. Stricter realism was appealingly combined with an attempt to convey character. Common themes investigated youth and age, hermaphrodites, groups suggesting a complex set of emotions (e.g. the *Laocoön*), or physiological studies (e.g. the *Belvedere Torso* and the *Boxer*).

During the principate, Roman building techniques were widely adopted in Greece (for example, in the use of fired brick and brick with mortar construction, as well as, occasionally, podium-style temples). Other Roman amenities, such as baths, became a common feature of any well-appointed Greek town, while mosaics, wall paintings, marble revetments, and Roman-style garden sculptures became an integral part of costly homes and public buildings. For reasons of both economy and an archaizing spirit, reuse of architectural materials was common throughout the Roman period (for example, 12 unfluted Ionic columns were brought from the temple of Athena at Sunium for use in Athens for a podium temple in the Agora).

Since Greece had lost its ability to compete through war, the centuries of Roman rule provoked a new competitive spirit. Abandoning the old political rivalries, cities were now transformed by cultural battles. Citizens strove to build ever more beautiful buildings, and, with Roman direction and encouragement, they offered expensive prizes to their victors in the Panhellenic games. During the 2nd and 3rd centuries AD Achaea held a privileged position in the world of these athletic competitions. Celebrating such contests in the Greek manner became a popular pastime throughout the Graeco-Roman east. The games were expanded and an elite circuit of festivals was established that included the four ancient Panhellenic festivals, as well as newer games such as the Asclepian games at Epidaurus, the Olympia Commodea at Sparta, and at Athens the Panhellenia, the Olympia, and the Hadriana. Other popular games, off the most common circuit, were found at Sparta (the Urania) and in Boeotia (the Eleutheria at Plataea, Trophonea at Lebadea, and Heraclea at Thebes). Regional games also existed and, though these were locally popular, they tended to have fewer out-of-town visitors and very small prizes (such games included the Gorgas festival at Ambryssus and the Euryclea at Sparta). Nearly every city had its own gymnasium where the young men could train for the games.

Likewise drama, music, and even religion provided an arena for competition, not only through the building of temples and theatres, but also through the professionalization of actors, singers, and poets, who toured throughout their regions. Religious festivals generally became elaborate affairs, particularly with the introduction of popular new cults into the Graeco-Roman world. The mystery cults of Isis, Mithra, Judaism, Christianity, and the imperial cult of Roma and Augustus were among the most common of these. The imperial cult was, of course, also a means to express loyalty and support for the rulers of Rome. This cult was introduced very early in Greece; for example in Athens the cult was founded in 27 BC. In fact, religious fervour seems to have been on the rise throughout the Graeco-Roman world and can be seen even in philosophical movements such as Neopythagoreanism and Neoplatonism, both of which evoked strongly emotional and spiritual reactions. Cities also demonstrated their importance through their support of education: higher education was paid for out of public funds and even smaller cities had teachers on salary.

Many Roman emperors showed an active interest in Greece (sometimes, of course, this meant despoiling Greece of its art and antiquities). Pausanias reports that Claudius restored to Greek cities the artworks and statues that his predecessor Caligula had looted. He also remodelled the entrance way to the Athenian Acropolis. Nero was a devoted and active Philhellene. He spoke Greek, attempted to cut a channel through the isthmus of Corinth (to improve communications and trade), and he declared Achaea free at the Isthmian Games in AD 66/67, though this status was overturned by Vespasian only a few years later.

While the emperors clearly felt it their right to remove whatever objects from Greece they wished, imperial dedications to Greece could be substantial, including buildings, roads, and other physical manifestations of their concern for Achaea (as well as concern for their own prestige). The Flavian and Trajanic ages particularly marked an increase in both local and imperial benefices to Greek cities. Trajan built the Library of Pantaenus in Athens and instituted a competition in Sparta for the "best citizen". Sparta's competition relied on a citizen's "love of honour" and the prize was the right to take over the city's costly liturgical offices in a generous way.

Some Roman benefits had a profound effect on the appearance of Greek cities. Among the most dramatic of these was introduction of the colonnaded street – broad avenues flanked by matching porticoes and often paved in marble (such as at Athens and Corinth). Hadrian supported numerous costly projects including buildings at Delphi and many structures in Athens – transforming and restoring Athens in the process (Hadrian's Library in Athens was closely modelled on the temple of Peace in Rome and helped to create a new sense of space in the centre of one of Greece's oldest cities). The emperor also had constructed stoas, temples, aqueducts, bridges, and baths throughout the province of Achaea. Private benefactors participated in such largesse as well. One of the most famous of these was the wealthy Athenian, Herodes Atticus. A Sophist, Roman senator, and a friend of Hadrian's, he used his wealth and power to beautify Greece (for instance, he built a music hall and stadium in Athens, replaced statues at Olympia, and remodelled a music hall in Corinth).

In 131/32 Hadrian founded the "Panhellenion", an organization of Greek cities (from Greece, Asia Minor, and north Africa) centred in Athens. By creating this organization he implicitly joined himself to the traditions of Classical Greece and the legends of Athens' founder, Theseus. Hadrian's behaviour was set neatly within a cultural context that generally idealized and tried to revive the Greek past. A specific feature of this 2nd-century Greek revival was known as the Second Sophistic, a movement in which Sophists, or teachers of rhetoric, sought a public reputation. References to the past were central to their approach and were integral in their performances. Most Roman elites, even many of the emperors, had been schooled by such rhetoricians. Thus, rhetorical and philosophical schools flourished in many Greek cities, including Athens and Sparta. (Marcus Aurelius eventually endowed philosophy chairs in the cities of Achaea, in part because of the respect instilled by his own training.) This education and the fairly common activity of tourist travel to Greece – a fashion

encouraged by Hadrian's own travels in Greece – combined with the foundation of the Panhellenion, created a climate favourable to merging both the "Greek past and the Roman present". This lively and pro-Greek atmosphere, though archaizing, benefited Greece both materially and intellectually. Roman respect for Greece and its traditions lasted well into the 3rd century AD.

At the same time, Greek elites were beginning to infiltrate the Roman aristocracy, by being admitted increasingly to the senate and equestrian classes. Local elites continued to play important roles as Roman administrators and representatives. These men formed a part of the empire's governing body. This is not to say, however, that the Greeks accepted Roman authority without resistance. Revolts erupted periodically throughout the period of Roman rule into the 2nd century AD. Indeed, a small abortive rebellion occurred even under the relatively benevolent rule of Antoninus Pius. Less overt forms of resistance were also present in Greek behaviour through, for example, continued local control of religious icons, rituals, and sacred space.

The late 2nd and 3rd centuries AD brought unwelcome changes to the entire Roman world. Civil wars, economic woes, migrations, and invasions from the north characterize this era in Graeco-Roman history. The needs of the imperial treasury increased economic and material demands on the provinces. Ambitious building projects and artworks were neglected in favour of defensive structures and strategies, especially since the northern peoples were no longer held back at the borders of the empire, forcing the Greeks to defend themselves from invaders such as the Goths in AD 262 and the Heruli in AD 268 (these latter were expelled by the Philhellene emperor Gallienus). According to tradition, the Herulians destroyed nearly every building in Athens (except perhaps the area around the southern slope of the Acropolis). These attacks did leave tangible remains, both in the numerous destruction layers of Greek towns, and in the visible response of the inhabitants of Greece. The citizens of the unarmed province of Achaea, Zosimus recalls (1. 29. 3), fell into a panic at first, but evidence also suggests that inhabitants fought the invaders off and then, in some regions, hurried to restore and/or build fortifications both in urban areas and on the frontiers. An inscribed poem in Athens records this building effort after the Herulian attack: "As Amphion raised the walls of Thebes by the music of his cithaera so now do I, Illyrius, follower of the sweet voiced muse build the walls of my native city." Claudius Illyrius was the governor of Cyprus and was honoured with statues on the Acropolis of Athens, perhaps for the gift of walls to his native city.

Upon Diocletian's accession to the throne, the empire was temporarily at peace and the emperor set about solving the more serious economic and social problems in the provinces. Some regions in Greece enjoyed a brief building boom, but when he stepped down, conflict began again, and the Balkans, Greece included, became a recruiting ground for Constantine's civil war with Licinius. Constantine, once in power, moved his capital to Byzantium, "New Rome" or Constantinople. In deference to Greece's illustrious past, Constantine encouraged another revival of Greek letters and renewed support for educational institutions after the hiatus of the civil wars. Thus, during the early 4th century Achaea generally saw a renewal of building and literary activity, rejuvenation in the decorative arts (Christian sarcophagi were the medium of some of the best sculptural artists of the times), and an invigorated economy. Nevertheless, in the tradition of earlier emperors, Constantine felt it his right to remove art and artefacts from his provinces, including Achaea, to beautify his new capital. Despite the emperor's respect for Greek traditions, and his desire for its art, there was a widespread decline in the dominance of Hellenic culture among the Latin ruling classes. The court at Constantinople, for example, was predominately Latin-speaking, forcing ambitious Greeks to learn Latin and Roman law in order to get ahead. Increasingly too, after the 4th century, Greeks became Christianized. Hellenic political, religious, and economic orientation turned east and thus began the transition in earnest to the later Roman empire, or early Byzantine era, in Greek history.

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See also **Political History 31 BC–AD 330**

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ROMANIA

Romania is situated on the western shore of the Black Sea at a point where routes from Central Europe to the east and southeast converge. Its southern and southwestern frontier is marked by the Danube (ancient Istrus); its western and northwestern frontier extends far into the Hungarian plain; and its northeastern boundary is the Prut river, although from time to time it stretched to the Dniester by the incorporation of all or part of Bessarabia. Dobrudja abuts its Black Sea coastline, and this too has been attached to the core of modern Romania – the principalities of Moldavia and Wallachia – within varying boundaries at different times. The Carpathian mountains cut an arc through the country from northeast to southwest, separating those parts long under the influence of Constantinople and those which, looking to the Black Sea from Transylvania, the Banat, and Maramures, belong to the Danube basin and formed part of millennial Hungary before 1919.

The territory of modern-day Romania has been populated from the Palaeolithic period. The country's historical period begins in the 9th–8th centuries BC and is connected in southwestern Europe with the so-called Thracian Hallstatt period (*c.*600–550 BC), which corresponds to European Hallstatt C. Basarabi culture is considered the most representative of this new period within Romanian territory: the population was formed of mainly agricultural tribes living in fortified or open villages whose dwellings were constructed of timber.

The middle Danube was populated by the Tribali, a Thracian tribe, and Dobrudja by the Crobyzi and Getae. In Dobrudja the assimilation of the Getae and other Thracian tribes by the Dacians (from the second half of the 6th century BC) led to the creation of a Geto-Dacian culture. In addition to these tribes, Scythians inhabited both Dobrudja and Transylvania, introducing certain types of iron weapon, contributing to the development of art, and bringing certain features of Greek civilization to Transylvania. Greek influence reached the Geto-Dacian peoples more directly – via Greek colonies established on the Romanian Black Sea coast. The lands south of the Carpathians have yielded very fine examples of metalwork (helmets, greaves, goblets and other vessels, and a gilt rhyton), decorated mainly with zoomorphic figures, although human figures and floral and geometric ornament are not entirely absent. Some of these objects may have come from native workshops (Thracian or Getic); most, however, are from Asia Minor or the Pontic region, or are of Persian workmanship.

Histria was the first Greek colony on the Romanian Black Sea coast. It was founded by Milesians in the last quarter of the 7th century BC at the mouth of the Danube, and named accordingly. In the archaic period it was a small settlement of modest wattle-and-daub houses, surrounded by defensive walls, From the Classical period it grew: stone temples were built in the city's sacral area; stone dwellings were constructed, many with fine masonry, some with an upper storey; and the city minted its own coins. Histria became the centre of Hellenic culture in Getic lands. It was a centre of trade through which Greek goods penetrated deep into the hinterland. Its agricultural territory (*chora*) was populated by local people, who also formed a small part of the city's own population. In the Hellenistic period Histria doubled in size; new city walls were built, as were new temples. In the Roman period the city was enlarged further and yet new city walls and new temples were built. It remained a craft and trade centre until its destruction in the 4th century AD.

Another two Greek colonies, Tomis (modern Constanta) and Callatis (modern Mangalia), were established on the Romanian coast. Tomis, Ovid's place of exile, was established, also by Milesians, at the end of the 6th century BC. Excavation is very difficult, as the modern city lies directly above the ancient settlement; chance finds, however, demonstrate that it was an important craft and trading centre. In the Roman period it was decorated with marble sculptures, and mosaics were also found there. Callatis was established by Heraclea Pontica, itself a Dorian colony on the south coast of the Black Sea. Archaeological material and inscriptions demonstrate that Callatis, sited in a fertile cereal-growing region, was a prosperous city.

At the end of the 4th century BC the Celts entered Transylvania, bringing with them a more advanced iron-working technology and the potter's wheel. Celtic tombs in this area contain fine metal objects and pottery. North of the Carpathians Celtic influence played a role of similar importance to that of the Greeks in the southern and eastern regions.

Under Greek influence the Geto-Dacians minted their first coins in the 3rd century BC, imitating those of Philip II and Alexander the Great. Assimilation of the different tribes and cultures was gradually completed. A similar process affected Scythians of the Dobrudja, who exacted tribute from neighbouring Greek cities in exchange for military protection: by *c.*AD 100 they had disappeared, the memory of their presence retained in the Roman name for Dobrudja – Scythia Minor.

In *c.*80 BC Burebista established the kingdom of Dacia and became its first ruler. Dacia reached its peak under King Decebalus, who fought against the Romans. The second Dacian War (AD 105–106) brought about the destruction of the Dacian kingdom and Roman conquest of the entire region. The importance of this to the Romans is shown by the erection of Trajan's column (*Tropaeum Traiani*) at Adamclisi in AD 109; this, the most important Roman monument on the lower Danube, depicts scenes of Roman victory in the war. Trajan made Dacia a Roman province. Because of its strategic importance, an outpost of empire in the hostile region north of the Danube, it was placed under direct imperial authority. Three legions reinforced by various auxiliary troops, a force of some 50,000 men, were permanently stationed there. Here Roman culture had a clearly military character. New Roman cities (such as Sarmizegetusa, Apulum, Napoca, and Drobeta) were established, as well as military settlements. The Danubian *limes* was strengthened by the construction of fortresses at such points as Axiopolis, Carsium, and Capidova. New cities (Tropaeum Traiani and Troesmis) were also founded in Scythia Minor.

The province of Dacia, extremely hostile to the Romans, could be held against frequent invasions by aggressive neighbours only at enormous cost in terms of money and manpower. In 271 the emperor Aurelius decided to evacuate the province. This led to a cultural retreat and Dacia's return in the 4th century to its old agrarian lifestyle.

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ROME

Largely through Magna Graecia, Greek influence on Roman life began to be felt at least as early as the 5th century BC. The *Sibylline Books* early acquired importance: kept beneath the temple of Jupiter Optimus Maximus, they are first recorded as being consulted in 496 BC. The cult of Apollo was introduced to Rome in 431 BC, and his oracle at Delphi was consulted in 398. As Rome's empire expanded, contact with the western Greeks increased; Greek art – particularly statues – arrived in large quantities on the capture of Syracuse, Capua, and Tarentum (211–209 BC).

Extensive Hellenization, however, began mainly in the 2nd century BC and chiefly as a result of Roman military conquest of the east, climaxing in Perseus of Macedon's defeat at Pydna in 168 BC and the sack of Corinth in 146 BC. More works of art came to Rome. (Polybius reports that in 146 Roman soldiers used Corinthian paintings as gaming boards, but more often captured artefacts were reverently or ostentatiously displayed in temples, villas, and public buildings.) Whole libraries also came: Aemilius Paullus took Perseus', and in the 1st century victors' spoils included libraries which had once belonged to Aristotle and Theophrastus; Pompey brought the medical works collected by Mithridates. And also, most importantly, there came the Greek personnel – refugees, political detainees like Polybius, educated slaves, many of whom were later manumitted – who could organize libraries and give instruction at all levels in Greek language, rhetoric, and philosophy. Other visitors who whetted an appetite for such learning included Crates of Mallus, who lectured in Rome probably during the 160s, and the three philosophers who came as ambassadors from Athens in 155 BC. The presence of such figures contributed to an already strong Greek element in Roman education; increasingly in the 1st century BC Latin equivalents to Greek teaching materials were produced, but the principles remained Greek and knowledge of the language from an early age continued throughout the Roman period to be regarded as essential for members of the ruling class. (In literature Greek influence was also pervasive, as for instance in Plautus' adaptations of material from New Comedy in his plays.)

Some prominent Republican Romans were evidently philhellenic: for example Aemilius Paullus (d. 160 BC) and his son Scipio Aemilianus (185/4–129 BC), friend of Polybius. On the other hand Cato the Censor (234–149 BC) was one of those who publicly associated Hellenization with moral degeneracy, and the stereotype of fickle, unreliable Greeks – used on occasion for forensic purposes, for instance, by the otherwise generally philhellenic Marcus Tullius Cicero (106–43 BC) – remained commonplace into imperial times. But even Cato was fearful only, according to the usual modern view, of excessive Hellenization; he was himself well versed in Greek literature. By the 1st century BC Hellenism had clearly acquired an irresistible momentum. (On the other side, it seems to be in the late Republican and early imperial centuries that the double meaning of *Rhome* in Greek – Rome and strength – gave the city, and increasingly the cult of the goddess Roma, as Erskine has suggested, "a special aura in the eyes of the Greeks".)

Under the principate (as often earlier) it is not always possible – or profitable – to separate Roman and Hellenic elements in Roman culture. But there are some episodes and periods where one can be more specific. Augustus' rebuilding of Rome relied heavily on Greek expertise in working with marble and Athenian craftsmen in particular led the "neoclassical 'purification' of architectural decoration" (Torelli, 1996). Some of the most evidently Hellenic work was for Gaius Sosius' restoration of the temple of Apollo in the Circus Maximus. Nero indulged in public, in Rome as in Greece itself, in Greek athletics and singing to the lyre. The notably philhellene Hadrian (whose early nickname *Graeculus* indicates that resistance to such immersion was not yet dead) introduced many Greek elements into the decoration of his villa near Tibur (Tivoli) and brought a fresh wave of artists from the east to work there and on projects including the temple of Venus and Roma in the Forum Romanum. At the same time the status of non-Italians was changing: senators with origins in the Greek east, occasionally admitted since Augustus' day, were numerous by the reign of Trajan.

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See also **Roman Period**

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SACRIFICE

Thought to be an important means of communication between divinity and mortals, sacrifice is a central feature of religious practice. In antiquity, although animal sacrifice was predominant, the offering of fruit and vegetables was also considered to be sacrifice. The mythological *aition* (origin) of the idea of sacrifice is believed to be the story of Prometheus in Hesiod's *Theogony* (521–616). Prometheus, representing mortals, hosts a dinner at Mekone (Sicyon) and purposely deceives Zeus by assigning for him a good-looking portion that consists of nothing but bones. There are references to sacrifice throughout ancient Greek literature, and with the help of archaeological finds such as vase paintings and votive reliefs we are able to reconstruct approximately what went on. The sacrifice probably consisted of three stages. There was a procession that led the animal to the altar, and a purification ritual in which the animal's head was cleaned with water and sprinkled with barley grain. Then followed the cutting of the throat, and finally the burning of the meat. The gods' portion was bones covered with fat; then the entrails and the meat were given to the participants for consumption. The entrails were observed by the priests because their condition was supposed to provide omens. That is why sacrifices were often made at critical moments in mythology as well as in history, before mounting an expedition or taking an important decision. Most cults and festivals (such as the Dionysia, the Bouphonia, and the Eleusinian mysteries) involved some form of sacrifice. Besides the official celebrations in honour of a god or goddess, where sacrifice plays a central role, sacrifices were made at major events in private life, such as marriage, childbirth, death, and were often accompanied by libations. Sacrifices could be organized at various levels, by a city, a deme, a family, or an individual. Young people of both sexes would offer sacrifices to Artemis before they got married. Pindar tells us about fireless sacrifice (*Olympian*, 7. 47). Burned sacrifices were believed (Philostratus, *Eikones*, 2. 27) to have first appeared in Athens, where they were conducted gloriously. The altar was the site of the sacrifice. The Classical Greek altar was stone-built and often decorated at the sides. As for human sacrifice, some scholars have argued that it was practised by the Minoan civilization, citing examples from myths such as that of Iphigeneia; but this is a theory that requires more research before it can be accepted.

Sacrifice was conducted to honour not only the gods but also heroes and heroines in corresponding cults. Very often the word *enagizein* (''make sacrifice to the dead'') is used for heroic cults in contrast with *thuein* (''make offering to the gods''). Many heroes featured in the deme calendars that regulated the sacrifices that were to take place during the year. Most often the sacrifice was followed by a banquet, as in the cult of gods. In addition to blood sacrifice, libations were performed at the tomb of a hero, as on a funerary occasion, and votive offerings would be dedicated to heroic figures, most often objects (vases, shields, etc.) with artistic depictions inspired from the life of the hero. Some scholars have argued that there was sometimes ritual antagonism in sacrifice between gods, or between heroes and gods, as in the case of Erechtheus and Poseidon in Attica.

ANDROMACHE KARANIKA-DIMAROGONA

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SALAMIS (CITY)

City in Cyprus

Unlike Paphos, which had a predecessor in the Bronze Age and even earlier at the same location, Salamis is a relatively new foundation, dating to the 11th century BC. Its Late Bronze Age predecessor Enkomi lies *c.*2 km inland, to the southwest. Around the beginning of the 11th century BC the inner harbour of Enkomi silted up, perhaps as a result of earthquakes, and the

town was gradually abandoned; its inhabitants chose a site near the sea, which was provided with a natural harbour, and the town of Salamis developed around this harbour. Judging from the perimeter of the 11th-century BC fortification wall, the early town was small, with its necropolis situated *extra muros* to the west. Of the 11th century BC only one sanctuary has been excavated, as well as a portion of the city wall, but there is ample ceramic evidence that the town originated at that time. This is also supported by the discovery of a tomb of the same period, west of the harbour, with a long narrow *dromos* (entrance passage) and a rectangular chamber, of a type which was introduced to the island from the Aegean. According to mythical tradition the founder of Salamis was Teucer, the son of Telamon, king of the island of Salamis (near Attica) and brother of Ajax, who came to the island after the end of the Trojan War. Underlying this myth may be the phenomenon of the foundation of new towns by Achaean immigrants of the 12th century BC, after they finally established themselves on the island and gained political power.

Salamis of the Dark Ages (10th and 9th centuries BC) is not represented in the archaeological record, but the 8th–7th centuries BC are represented by a number of large built tombs with monumental *dromoi*. Although the chambers of these tombs have been found looted or half-looted, many important objects were found in the spacious *dromoi* which the looters left intact. The size of the tombs, their style, and the wealth of objects which they have yielded justify their identification as "royal", although not all of them were used for the burial of members of the royal family. As in other tombs, at Salamis too there must have been an aristocratic elite, probably the descendants of the Achaean immigrants of the 12th–11th centuries BC. The burial customs which have been observed for these "royal" burials are remarkable: the dead person was placed in a ceremonial chariot or hearse, drawn by two or four horses, and was carried to the tomb. The chariots and horses were richly adorned with bronze plaques and gear respectively, all decorated in repoussé with Egyptianizing scenes. The chariot was drawn down the slope of the *dromos* to near the entrance of the chamber. There the horses were ceremonially killed. The sacrificing of horses in honour of the dead recalls Mycenaean burial customs. In one case there is evidence for the burial of slaves in the *dromos* of a tomb to serve their master in the afterlife. Among the tomb gifts there were weapons and ivory furniture (a bed and a throne were found in Tomb 79). There were also iron skewers (*obeloi*) and firedogs of a type known on Crete and in the Argolid during the same period. The burial customs of the "royal" tombs of Salamis, as well as the gifts offered to the dead, recall customs and objects mentioned by Homer in the *Iliad* (book 23, where the burial of Patroclus is described). This has led some scholars to interpret the appearance of such burial customs at Salamis as the result of the reciting of the Homeric epic in the court of Salamis. The most plausible explanation, however, is that such "heroic burials" also existed on the Greek mainland, and it was quite natural for the aristocratic elite of Salamis to imitate these burial customs.

Salamis maintained close relations with Greece throughout its history. In a "royal tomb" of the 8th century BC a large number of Greek Geometric bowls and dishes were found, as well as a *krater* (mixing bowl). The dead person, a woman, was cremated and her incinerated remains together with her necklace were put in a bronze cauldron. Gjerstad ingeniously proposed that this was the tomb of a Greek princess who had married into the royal court of Salamis.

Salamis of the late-Archaic and Classical periods is known from tombs as well as the votive offerings belonging to a sanctuary on the western outskirts of the town. The style of the limestone statues, most of them female, imitates that of the Greek *korai* of the end of the 6th and the beginning of the 5th century BC.

The earliest king of Salamis whose name is known is Euelthon (560–525 BC). He was the first to issue silver coins on the island in 530 BC. Herodotus (4. 162) records that queen Pheretima of Cyrene visited Euelthon in 530 and asked for his assistance in re-establishing her son on the throne. Herodotus also mentions Euelthon as having dedicated an incense burner at Delphi, which could be seen in the treasury of the Corinthians. Another Salaminian who offered a *peplos* (robe) at Delphi, woven by himself, was Helicon, son of Acesas.

Herodotus describes very vividly the dramatic events connected with the Ionian revolt and the active participation of the Salaminians under their king Onesilus (5. 104, 108–16). The latter managed to dethrone his brother, the pro-Persian king, and lead the revolt. He died while besieging the pro-Persian kingdom of Amathus.

One of the most famous kings of Salamis was Evagoras I, probably a member of the Teucrid royal family and a great supporter of Athenian policies. He was honoured by the Athenians, who erected his statue in the Agora of Athens next to the statue of Zeus Eleutherios. His ideal was to unite all the Greeks under the leadership of Athens. In Cyprus his efforts were to unite all Cypriot kingdoms under the leadership of Salamis in order to free the island from the Persians. Neither of these ideals was fulfilled. He fought against the Persians and helped the Athenians against the Lacedaemonians. He died in 374/73 BC, a few years after the Peace of Antalcidas was signed in 386, which decreed that all cities of Asia and Cyprus should belong to the Great King. The Greek orator Isocrates praised Evagoras in one of his orations; Isocrates was the tutor of his son, Nicocles.

A funerary monument, the cenotaph of the last king of Salamis Nicocreon, was excavated in the necropolis of Salamis. On the funerary pyre, under the tumulus of earth, the Salaminians buried rich gifts for the brave king and the members of the royal family who preferred to die rather than surrender to the Ptolemies. This event, narrated by Diodorus, is dated to 311 BC. The burial may have been effected by Demetrius Poliorcetes, who became the ruler of Cyprus in 306 BC.

Salamis continued to be one of the most important cities of Cyprus, but with the transfer of the capital to Paphos in the 1st century BC the city must have lost some of its glamour. Its harbour and its rich hinterland, however, contributed to its continued prosperity. During the Roman period the city enjoyed the favours of Trajan and Hadrian, who erected public buildings such as the gymnasium and the theatre, which they adorned with marble statues. The temple of Zeus Salaminios was considered to be one of the most important religious centres in the island. Recent excavations have revealed some of the splendours of Salamis in the northern part of the town including a gymnasium, a theatre, an amphitheatre, a *xystos* (colonnade), and spacious baths.

The city was destroyed by the earthquakes of the 4th century AD, after which it was reconstructed on a smaller scale as a Christian city, named Constantia in honour of the emperor Constantius II, who assisted in its reconstruction.

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SALAMIS (ISLAND)

Island in the Saronic gulf

The island of Salamis sits off the western coast of Attica. It is the northernmost island of those which lie in the Saronic Gulf. The island is approximately 100 sq km in area. The terrain is mountainous, with some arable plains. There are no rivers running on the island today. The vegetation consists largely of pine, scrub oak, and olive.

The island was inhabited from at least the Neolithic period. Excavation in a cave on the south coast of the island has produced numerous stone implements. In addition, prehistoric pottery has been found at various spots on the island. The Bronze Age is well represented by tombs and pottery, both of which have been found all over the island. The remains of a Bronze Age settlement may be seen at Ginani in the southern part of the island. A large sub-Mycenaean cemetery was excavated on Salamis around the start of the 20th century. It yielded much pottery, some of which came from Attica. There was thus a connection of some kind between the two places from an early period.

Although the centuries between 1000 and 800 BC are less well represented, there is some evidence of habitation, and from the Archaic period through to the present there is clear, continuous habitation. While the area most heavily inhabited in the Bronze Age seems to have been the southern section of the island, in the Archaic and Classical periods the settlement moved north to the middle of the island. The Classical city sat on a peninsula on the east which juts out towards Attica. Later, at a date which is still not certain, the principal settlement moved to the west coast of the island, and this city (modern Salamina) is still the principal city on Salamis.

The mythology of the island is related by the 1st-century BC historian Diodorus Siculus, among others, who says that Telamon and Peleus killed their brother Phocus on the island of Aegina, and then Peleus fled to Thessaly and Telamon to Salamis. Telamon, according to one version of the story, was then married to the daughter of the king of Salamis, and they had a son, Ajax. When the old king died, Telamon inherited the island, and one of his grandsons in turn gave it to the Athenians. (Peleus married Thetis and she bore him Achilles. Thus Achilles and Ajax are cousins.)

The close ties between Athens and Salamis are further demonstrated by the earliest Athenian decree (late 6th century BC), which deals with regulations for those living on the island, and by the use of Ajax as one of the ten eponymous heroes chosen by Cleisthenes in 508 BC for the Athenian tribes. Ajax was the only non-Athenian in the group.

In 480 a critical naval battle in the Persian Wars was fought in the straits between Salamis and Athens. The smaller, swifter ships of the Athenians outmanoeuvred the large Persian ships, and the Athenians and their allies defeated a larger power. This battle became a legend in Athenian history, and a topos in Athenian literature. Thus later writers who refer to Salamis often do so with reference to this battle. The island itself served as a refuge for women and children during the Persian invasion of Athens.

At least two major figures in the 5th century had connections with Salamis. Towards the end of the Peloponnesian War democratic sympathizers took refuge on the island, and they were pursued there by the Thirty Tyrants. An incident involving one such individual, a certain Leon, is mentioned by Socrates in the *Apology*. Socrates was meant to retrieve Leon from Salamis, but he refused to do so. Also there was a tradition that the playwright Euripides was born on the island, and that he used to write his plays there in a cave overlooking the sea.

Mention must be made of two groups of people who lived on the mainland of Attica and called themselves Salaminioi, i.e. men from Salamis. These men from Salamis were dubbed the Salaminioi of the Heptaphylai, and the Salaminioi from Sunium. It is unclear when, where, and why they had their origins, and furthermore we have little idea of their purpose. They are known through fragmentary inscriptions, and study of those is still ongoing. They were apparently a kinship group with a civic function.

Aristotle tells us that Salamis had its own archon, although no remains of any inscriptions concerning archons on the island have been identified. It is also known (from the *Athenaion Politeia*) that Salamis had its own dramatic festival, but no remains of the ancient theatre have been found.

The island changed hands in the late 4th century, when Demetrius was in control at Athens, but there is little other solid information about the status of the island in the literature of the Hellenistic period. It is known through inscriptional evidence that the Ephebes, Athenian (and later, wealthy Roman) young men in military training, performed some of their activities on and around the island. Numerous honorific inscriptions attest to their good behaviour while on the island.

Roman pottery is visible at many sites on the island and it is thus clear that Salamis remained active in the waning years of the pre-Christian era, and the subsequent centuries of the empire.

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See also **Persian Wars**

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SAMOS

Island in the east Aegean

Samos is one of the larger of the Aegean islands, with an area of 492 sq km, and it lies closest of all of them to the coast of Asia Minor: the channel dividing it from Turkey is today only 3 km wide, and in prehistoric times it was joined to the mainland. In antiquity it was known as both Parthenia and Anthemus, but as Samos from at least the 5th century BC. Pausanias (10. 12) claimed that the island had an early distinction as the home of one of the first of the Sybils. It is quite mountainous, well watered, and heavily wooded, and has always been known principally for the fertility of its land; the island still exports olive oil and tobacco. While for later centuries the fineness of Samian muscat wine was much famed, and was later to be extolled by Byron, it was not always thus. Strabo (*Geography*, 14) emphasized the poor quality of the island's wine compared with other islands in the region, but praised its other products, and quoted Menander as saying that "it even produces birds' milk".

Throughout the pre-Christian period from the 3rd millennium BC the island was populated, but it was only in the 6th century BC that Samos knew real fame and power, when the tyrant Polycrates established himself as sole ruler. He built up a powerful fleet, annexed other islands, and established a famous court that attracted artists of all kinds. A tunnel more than 900 m long that was completed in 524 BC under the direction of Eupalinus of Megara, ensuring a water supply to the city of ancient Samos in time of siege, remains to this day a unique monument to another aspect of his reign. To Polycrates is also attributed the construction of a man-made harbour and breakwater. The success with which the Samians resisted a siege by the Lacedaemonians for 40 days (Herodotus, 3. 56) during the reign of Polycrates, when they were unable to bring about the city's subjection, was no doubt due in part to this tunnel. The tyrant's eventual death at the hands of Oroetes is described by Herodotus (3. 125): "He slew him in a way too horrible to describe, and then crucified him."

At least one and a half millennia of the history of Samos can be traced in the extensive coastal site of the sanctuary of Hera, known as the Heraion. Its earliest remains date from the Bronze Age, but its most impressive feature, which was known all over the Hellenic world, was the great temple built during the 6th century BC; its size (it was almost 100 m in length) caused Herodotus to state that it was the largest of all the temples he had seen. "Its first architect was Rhoecus, the son of Phileas, who was a Samian" (3. 60). Burnt down in the later 6th century BC, it was rebuilt, with numerous other structures added at various dates, before an early Christian basilica was built at its east end during the 5th century AD; a cistern here was in use into the 6th century AD. Pausanias also credited the same Rhoecus with being one of the first Greeks to make images by casting molten bronze (8. 14). Another 6th-century BC artist of great fame was Theodorus of Samos, who was a sculptor and architect, and made a magnificent ring of gold and emeralds for the tyrant Polycrates. He was credited by Pliny (*Naturalis Historia*, 34. 83) with creating the first self-portrait to be made in bronze.

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SAMOTHRACE

Island in the northern Aegean

Samothrace lies in the northern Aegean, at a point approximately equidistant from Thasos, Alexandroupolis, and the Gallipoli peninsula. It covers an area of 176 sq km and is well watered

and quite fertile, although it has a ruggedly mountainous interior. It was from the "topmost peak of wooded Samothrace" that Poseidon was said by Homer to have watched the fighting on the plains of Troy (*Iliad*, 13. 12). Pausanias (7. 4) records that it was first called Dardania, a name perpetuated in the important sea channel nearby of the Dardanelles. Samothrace has been populated from earliest times, but controversy surrounds the place of origin of its inhabitants. It was peopled initially by Thracians from the nearest part of the mainland of what is now northern Greece. In the Classical period colonists were said to have come to the island from Samos in the 8th century BC, hence its name. However, archaeological evidence tends to support Lesbos or the Troad as the source of these new settlers, though the Thracian dialect continued to be used until the end of the pre-Christian era.

The outstanding importance and fame of Samothrace in the Hellenic world was due to its being the focus of a cult, which caused the island to become the foremost religious centre in the northern Aegean from the 6th to the 1st century BC. The sanctuary of the Great Gods, excavation of which has continued for over a century, reveals that a complex process of initiation rites took place there. The mysteries that were enacted here are referred to by Plato and Aristophanes, and it is known that the historian Herodotus (among many others) underwent them. The physical remains of the sanctuary are immensely impressive; the rotunda, dedicated to the Great Gods by queen Arsinoe in the late 3rd century BC, is the largest circular structure known to have been built by Greek architects. The world-famous statue of the Winged Victory, also known as the Nike of Samothrace and now in the Louvre, was found here in 1863. With the statue of Venus found on Melos it perhaps shares the distinction of representing the essence of the Hellenic artistic spirit of its age.

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SANCTUARIES

In the context of Classical Greece a "sanctuary" is best defined as a sacred space, formally bounded and set aside for ritual activity. In historical times at least, such centres usually provided sanctuary in the sense of asylum for refugees from human or divine persecution.

Most of the important sanctuaries of Classical Greece were founded or underwent major development from the 8th century BC. The traditional date of 776 BC for the foundation of the Olympic Games is a good benchmark. The evidence is at first provided chiefly by sacrificial debris and small-scale votive offerings (among which pottery and terracotta and bronze figurines are prominent) at sites such as the sanctuary of Zeus at Olympia. Modest temples were sometimes built, but the most prominent structural and ritual component of the sanctuary was always the altar where sacrifical victims were burned.

Although ritual activity in sanctuaries was standardized to a degree (public and private sacrifice, votive offerings, some components of festivals), there were numerous local variations corresponding to the character of the individual cults.

Greek sanctuaries developed an increasingly monumental character after 700 BC, with first temples, then other buildings, constructed of ashlar masonry. These tended to accumulate slowly and haphazardly (e.g. at Olympia) in and around the sacred area. Only in the Hellenistic period did formal regular planning become the norm and then it could be effectively applied only to new or previously undeveloped sites (e.g. the Asclepieum on Cos).

The architectural character of sanctuaries, such as that of Apollo at Delphi in the late-Classical and Hellenistic periods, when structural development was most intense, provides the clearest indication of the major aspects of the festivals – athletic competitions (stadia, gymnasia, baths, offerings of victors), theatrical events (theatres, offerings). Their administration and the importance of the major sanctuaries (especially the Panhellenic centres of Olympia, Delphi, Isthmia, and Nemea) as international meeting places are indicated by other elements, such as *bonleuteria* (council chambers) and treasuries, as well as significant sculptural and architectural dedications, which often had a propaganda intent. Some of these functions are likely to go back to the period of expansion of the sanctuaries in the 8th century BC, although (unless the large bronze tripods from Olympia are athletic prizes, as is sometimes thought) there is little direct evidence, since most of them can be carried on without the need for any formal structures (races can be run on open ground: a stadium is a luxury).

In the Roman period the use of the Greek sanctuaries continued uninterrupted, although new buildings (the bath houses are particularly common and striking) were regularly added in the new and distinctive building style of concrete and brick. The appearance of temples to house the imperial cult (there was a temple to Rome and Augustus on the Athenian Acropolis) is another distinctive feature.

As Christianity gradually took hold of the Roman world, especially after its adoption in AD 313 by the emperor Constantine, the pagan sanctuaries went into decline, although they continued to be patronized at least until closed by edict of Justinian in AD 529.

The fact that many ancient sanctuaries have later Christian churches within their boundaries (at Olympia the workshop of Phidias was converted into a church in the 5th century AD), and particularly that some of these (the basilica at the sanctuary of Asclepius, Epidaurus, *c.*AD 400) seem to have been built before the pagan complex became defunct, shows that sometimes paganism and Christianity intermingled and that the places retained their sacred character, even when the formal nature of the religion changed. Some later monasteries (e.g. at Daphni, on the outskirts of Athens) are even built on the sites of ancient sanctuaries, and the modern buildings incorporate material from the ancient.

While the sanctuary in the sense defined at the beginning of this entry seems essentially a creation of the Geometric period and to have died with the banning of pagan religion, various similarities of form and function can be identified at sites of both earlier and later periods. In Greece some prehistoric sites have been designated sanctuaries, with varying degrees of probability and correspondence to the above definition.

Although the Neolithic period is a blank, in the Early Bronze Age the Cycladic island of Keros has sometimes been thought a sanctuary on the grounds of unusually rich discoveries of marble artefacts, but this is disputed. More plausible is the rustic shrine at Korfi t'Aroniou on Naxos, which was uniquely adorned by decorated stone blocks.

In Minoan Crete the most convincing candidates are the peak sanctuaries, remote hilltop sites with clear evidence of exclusively ritual activity (sacrifice, votive offerings). The Middle Minoan complex at Anemopsilia, near Archanes, is perhaps a temple rather than a sanctuary, but its ritual use is undoubted. Sacred groves are sometimes identified in scenes in art (seal stones, the "sacred grove" fresco from Knossos). Some houses (especially Xeste 3) at Akrotiri on the Cycladic island of Thera have extensive and clearly ritual painted scenes but their assignation as sanctuaries is difficult, since the focus again seems to be on the individual building rather than a sanctuary area; the same is true of other ritual structures, such as the "temple" on the island of Kea, the Mycenaean-type "sanctuary" at Phylakopi on Melos, the "cult centre" at Mycenae itself (a stronger candidate), or the shrine area at Mycenaean Tiryns.

It is impossible to say how far the elaborate festivals, often involving athletic and dramatic competitions, so characteristic of Classical sanctuaries, may have existed in prehistoric times, but there is so far no evidence for the sort of installations that later became the norm. One could however appeal to the funeral games mentioned in Homer or the scenes of chariots on Mycenaean gravestones and vases as hints of similar activities in earlier times.

While a few important later sanctuaries (Hera on Samos, Apollo Maleatas at Epidaurus, etc.) have produced virtually certain evidence of continuous use from prehistoric times into Classical antiquity, the extent to which this reflects continuity of religious belief and practice in detail is obscure. As well as these possible prehistoric predecessors, the continued use of parts of some sanctuary sites after AD 529 has already been mentioned. Several aspects of ancient practice associated with sanctuaries find echoes even up to the present day, although the degree of genuine continuity is hard to assess, partly because people look for similar relationships with their gods, whether Christian or pagan, and may approach them with similar rituals.

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See also **Architecture; Festivals; Healing Cults; Votive Offerings**

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SANTORINI

Island in the Cyclades

This form of the island's name is Frankish, from Santa Irini, one of the local churches. In antiquity, as often nowadays, it was called Thera, also at times Kalliste and Strongyle. At the south-east of the Cycladic group, it is geologically the most remarkable of the Cyclades, since it contains an active volcano.

Although there have been numerous recorded volcanic episodes over the last 4000 years, sometimes severe, the most violent concluded with the explosion and collapse of the crater in a massive catastrophe during the Bronze Age (*c.*1500 BC, or 1628 BC if recent scientific analyses are correctly interpreted). During the eruption phases at that time the volcano disgorged pumice and tephra (volcanic ash). The latter covered the island with a layer up to 50 m thick. This extraordinary event is thought by some to have been the source of the myth reported by Plato of the submerged city of Atlantis. Research has shown that tephra was also deposited in substantial quantities on Crete, Rhodes, and the mainland of Asia Minor, with potentially serious consequences for the agriculture of those areas. The massive tidal wave which followed the collapse of the crater almost certainly inflicted heavy damage on coastal sites in the southern Aegean. The psychological consequences of this catastrophe cannot now be accurately assessed but were surely profound, and must have played a part in the transfer of political and cultural authority in the Aegean from Minoan Crete to the Mycenaeans of mainland Greece, by weakening the former.

At the time of the eruption the material culture of Thera was spectacular. Archaeological work near Akrotiri since 1967 has uncovered a town with many buildings in fine ashlar masonry and richly decorated with frescos. If the unusually good state of preservation has not led to an overestimation of the significance of Late Bronze Age Thera, it may well have been a centre of architecture and the arts whose influence spread throughout the Aegean. Even if, as seems more probable, the artistic and technical achievements of the Therans were learnt from the Cretan palaces, it was nonetheless probably a centre of Cretan

authority in the Aegean and must have acted as a conduit through which ideas and techniques were exchanged.

In later mythology Thera got its name from Theras, who supposedly came there with a group of settlers from Sparta. This would explain the Dorian character of the island. Thera seems to have had significant settlement from the Geometric period and produced locally distinctive Geometric and Orientalizing pottery. The earliest remains of the ancient town, on an impressive but remote site high on Mesa Vouno, belong to the Archaic period. The nearby cemetery (Sellada) has produced finds from the Geometric period onwards, including three archaic *kouroi* (nude statues of standing young men). Therans founded the colony of Cyrene in 631 BC, according to Herodotus because their homeland was devastated by a long drought. The place flourished particularly in Hellenistic times, to which many of its surviving remains belong and when it was a forward naval station under the Ptolemies. It does not seem to have been particularly important in the Roman or Byzantine periods, although there are remains of both, including the painted church of the Panagia Episkopi, reputedly founded by the emperor Alexios I Komnenos (1081–1118).

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SAPPHO

Poet of the 7th–6th centuries BC

Born probably at Eressos on Lesbos around 630 BC, Sappho was a contemporary of Alcaeus and of Pittacus, the tyrant of Lesbos. Her family may have been involved in the same upheavals among aristocratic factions that feature prominently in Alcaeus, since sometime before 595–594 BC she is said to have been exiled to Syracuse, where there was a statue of her down to the 1st century BC. She seems otherwise to have spent most of her life in Mytilene.

The remains of Sappho's poetry consist of one whole poem (poem 1), preserved by Dionysius of Halicarnassus as an example of the "smooth and exuberant" style, in which she invokes Aphrodite to assist her in love; about ten substantial fragments, including five stanzas (poem 31) preserved by "Longinus", describing the physical symptoms of love; 100 short citations from ancient writers; and around 50 papyrus fragments. The poems are written in the Aeolic dialect native to Lesbos. Unlike that of Alcaeus, Sappho's extant poetry barely mentions contemporary politics, and her focus of interest instead is on individual emotion, and the traditional female concerns of love, marriage, and beauty. This focus accords with the general tendency of the early lyric poets to reject the Homeric role of poet as impersonal narrator. No more than the other lyricists, however, did Sappho ignore Homer, and some of her poetry seems to recast Homeric themes from a female perspective.

Her poetry indicates intense romantic and probable sexual involvement with some of the young women of whom she writes. The exact nature of these relationships must remain uncertain because our evidence is so fragmentary: possibly as early as Anacreon, but certainly by the time of Ovid's *Heroides*, the affairs were assumed to be sexual. Female same-sex love is rarely mentioned, though not unattested, in early Greece, and may have become taboo later on, but one may assume that such relationships and sentiments were acceptable in the Lesbos of Sappho's time. A relatively large number of her poems concern young girls, marriage, or farewells. It is therefore sometimes suggested that her poetry reflects a social structure in which young girls came to Sappho prior to marriage for some kind of education in music and other arts, and romantic or sexual involvement was part of the educative process. If so, one may compare the better-attested educational relationships between men and boys in the ancient world. Sappho's passionate descriptions of female beauty may be intended to inspire male desire for the girls in marriage – the destination of all Greek girls – as much as it expresses any personal feelings of Sappho herself. Some of the content of Alcman's *Partheneia* may be comparable.

Lesbos was home to an unusually large number of early poets – Terpander and Arion as well as Alcaeus and Sappho. It was also known for the beauty of its women, and as both a gifted poet and a celebrator of female beauty Sappho may be regarded as typical of her island. In later tradition she is regarded as anomalous precisely because of these two features. Although she was not the only female poet in the ancient world, she seems to have outshone others to such a degree that Galen states that "the poet" is Homer, and "the poetess" Sappho. Again, the intense passion of the poems has had a clear effect on her later reputation: one may guess that such passion was unusual, at least from a woman. One late tradition divides Sappho into two people – one a remarkable lyric poet, the other a sex-crazed courtesan. Down to Roman times, emphasis is less on the female objects of her passion than the passion itself, with the result that in Greek comic traditions she is portrayed as heterosexually voracious. Popular tradition recounts that she fell in love with a fisherman called Phaon and threw herself off the Leucadian rock when her passion was unrequited. The story probably derives from mistaken extrapolation from her verse: it appears on vases of the late 5th century BC, and was popular among comic poets from the 4th century BC. Roman attitudes to sexuality focused more on the female objects of her passions, and the concerns of the late 20th century have made Sappho's perceived lesbian sexuality nearly as important as her poetry.

Ancient sources unanimously praise her brilliance. She is a subject of vase painting from the late 6th century BC. She found favour with Solon and Plato's Socrates, and she is the subject of treatises from at least the 4th century BC. The Alexandrian scholars included her in the canon of the ten lyric poets, arranging her songs in nine books, according to metre. Theocritus, Callimachus, Apollonius, Moschus, and Bion all show her influence. Epigrams honour her: Dioscorides in the late 3rd century BC calls her the tenth Muse, and this honorific title becomes conventional for her thereafter. Her fame in her native island was such that coins from Mytilene of the 1st to 3rd centuries AD bear her portrait.

Sappho's poetic reputation has survived on progressively slimmer evidence, since she suffered the fate of all those writers whose subject matter or dialect did not suit the educational requirements of the later ancient world. Her difficult dialect rendered her writing unsuitable for inclusion in a canon that increasingly favoured Attic Greek: the lyric poets are notoriously under-represented in the body of texts that came to form the educational canon. Moreover, her passionate subject matter, like that of many other lyricists, did not suit the prevailing preference for texts suitable for the classroom.

As the canon came to dominate textual production, fewer and fewer noncanonical texts were copied, especially in the 2nd–4th centuries AD when the transition from the book roll to the codex took place. Even so, some of Sappho's poems did make that transition, and in the 2nd century AD the poems seem to have been popular as after-dinner entertainment. Most surviving papyrus fragments of her poetry may be dated to the 2nd and 3rd centuries AD. Gradually, however, Sappho came to be quoted in short citations more for grammatical or metrical peculiarities than for literary reasons, although writers down to the 6th century AD quote her and show some familiarity with her works. A parchment from Egypt shows that she still had an audience even in the 7th century AD.

After this the trail starts to go cold. This is more likely to be due to a general decline in circulation of all but the most standard authors than to Christian distaste for her subject matter. It is sometimes asserted that her books were burned, for example by Gregory VII in 1073, but the evidence for this is far from conclusive. Although the 9th-century lexicographer Photios cites her, the *Etymologicum Magnum* of *c.*1000 mentions her only five times and later encyclopaedias after the *Suda* ignore her. Byzantines of the 12th century and later mention her, but it is impossible to determine whether their knowledge derives directly from texts or from reference works. Tzetzes even claims that her work had disappeared by his time, although this may be an exaggeration. Certainly after the sack of Constantinople in 1453 rare texts such as hers are unlikely to have survived. In 1546 Robert Estienne published the first edition of Dionysius of Halicarnassus, which contains Sappho's only complete surviving poem, and in 1554 there followed the edition of "Longinus".

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See also **Poetry (Lyric)**

Biography

Born at Eressos on Lesbos *c.*630 BC, Sappho was a contemporary of the poet Alcaeus. She may have been involved in local politics, for she was exiled to Syracuse in the 590s, but she spent most of her life in Mytilene. Very little of her poetry survives but it was much admired in antiquity. Her passionate subject matter may not have endeared her to the Byzantines.

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SATYR PLAY

The satyr play was a type of Classical Greek drama that stood midway between tragedy and comedy. Satyr plays were composed by tragedians and performed with tragedies at dramatic festivals in Athens; the rules of these contests required that each tragedian present three tragedies followed by a satyr play. Satyr plays also resembled tragedies in being concerned with mythological subjects for the most part, rather than with contemporary ones, as were comedies. Like comedies, however, satyr plays were humorous, irreverent, and frequently obscene. The chorus was always composed of satyrs, mythological servants of Dionysus who were partly human but had horses' hooves, ears, and tails and wore enormous erect phalluses.

Satyrs were known for their wildness, drunkenness, cowardice, sexual appetite, and total lack of the virtues of civilization. The one satyr play that survives intact, Euripides' *Cyclops*, makes use of these attributes to produce a very funny parody of Homer's tale of Odysseus and the Cyclops, a one-eyed giant named Polyphemus. In Homer's version Odysseus and his men land on the Cyclops' island and are captured after they take some of his food. Polyphemus locks them in his cave and promises to eat a few of them every day for dinner, but Odysseus gets him drunk and blinds him, enabling the men to escape. In Euripides' version Silenus, an old man who cared

for Dionysus in his youth, has been shipwrecked on the Cyclops' island with the band of satyrs he leads, and all of them are serving as slaves when Odysseus and his men turn up on the island. Silenus sells them the Cyclops' property in exchange for wine, of which he has long been deprived, but when Polyphemus returns unexpectedly Silenus is terrified and pretends that the Greeks have robbed him by force. The Cyclops imprisons Odysseus' men and eats two of them, but Odysseus plies him with wine, while Silenus does all he can to get some of the wine for himself. Eventually Polyphemus becomes drunk enough to think that he is Zeus and Silenus Ganymede, and carries the frantic Silenus off into the cave. While he is gone Odysseus prepares a burning stake for blinding the giant, but the satyrs, who have promised to help him, prove to be too cowardly to do so. Odysseus gets his crew to help instead, and they blind the Cyclops and escape, taking the chorus with them.

The origins of the satyr play and those of tragedy are probably linked. Aristotle says both that tragedy grew out of the dithyramb and that it emerged from satyric drama; this satyric drama is probably not the Classical satyr play but its ancestor. The link between dithyramb and satyr play may have been made (sometime around 600 BC) by the poet Arion, who is said to have been the first to have his dithyrambs sung by choruses of satyrs. The word "tragedy" itself, which means "goat song", may come from the satyrs of such choruses; although depictions of satyrs on Greek pottery suggest that at an early period their non-human features were those of horses rather than goats, the satyrs in drama may well have disguised themselves as goats or acted like goats.

One ancient explanation for the development of satyr plays into their Classical form is that as tragedy developed from the dithyramb (originally a hymn to Dionysus), the tragedians started to use plots that had nothing to do with Dionysus; this annoyed the audience, and to satisfy them the poets invented the satyr play. More modern ideas are that the satyr play started from a humorous part of a tragedy (functioning to relieve tension like the grave-diggers in *Hamlet*) that was gradually split off, or that satyr plays were a genre parallel to tragedy that evolved somewhere in the Peloponnese while tragedy was emerging at Athens. In any case, the structure of satyr plays seems to be much like that of tragedies, though the length of the *Cyclops* suggests that such plays were in general much shorter than tragedies. They were probably performed, like tragedies, by three actors and a chorus of 12 (later 15).

According to legend, the first writer of satyr plays in their classical form was Pratinas of Phlius at the beginning of the 5th century BC; he was one of the most important and prolific writers of such works, but almost none of his output survives. Pratinas' son Aristias was another great writer of satyr plays, as was the tragedian Aeschylus, parts of whose satyr play *Dictyulci* have survived on papyrus. Euripides had a tendency to replace satyr plays with tragedies that had happy endings, such as the *Alcestis*, or with humorous pieces that did not use a chorus of satyrs; it is possible that Sophocles too may have written such "prosatyric" plays. Both dramatists, however, also wrote a number of satyr plays; Euripides' *Cyclops* survives intact, and a large portion of Sophocles' *Ichneutae* has been found on papyrus.

In the 4th century BC the production of satyr plays declined, and their number was reduced to one per tragic festival, rather than one per trilogy. The genre was revived in the Alexandrian period and still kept its chorus of satyrs, although these late satyr plays seem to have been concerned with contemporary events as well as with mythology. Eventually the genre inspired a type of Latin satyr play in Rome but died out in Greece. The satyr play has remained essentially a dead form to the present day, though the *Cyclops* and the *Ichneutae* are occasionally performed, the latter sometimes with a good deal of modern creativity supplying the missing portions.

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See also **Dithyramb; Tragedy**

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SCEPTICISM

The philosophical denial of the possibility of human knowledge

There are varieties of scepticism. Natural scepticism is simply asking for sufficient evidence before trusting some claim. This mode of doubting protects people from ignorance or credulity. Philosophical scepticism goes far beyond this.

Scepticism comes from *skeptomai*, which means "I inquire, consider, reflect". Inquiry can lead to answers (*dogma*), or to confusion when there is no reliable way to decide between competing answers.

Philosophical scepticism challenges all claims to knowledge by seeking to show that all is confusion. Philosophical scepticism challenges all epistemologies. Doubting, or withholding belief, until satisfactory reasons to believe are offered is the core of the sceptical method.

The Greek sceptics claimed they were the intellectual descendants of Socrates. They believed that the Socratic claim to ignorance, "I only know that I do not know", was not due to inadequate inquiry. Socrates could not know because no inquiry will ever find any answers.

Actually the real fountainhead of scepticism lay not in Socrates, but in his opponents, the Sophists. These teachers had expressed the confusion felt by many Greeks at the contradictory answers of the Presocratic metaphysicians, and the scepticism implicit in their thought. In addition, the flood of conflicting ideas challenging traditional belief after Alexander the Great's conquests and the loss of meaning in public life with the end of independence of the city state made despair common.

The sceptics attacked the claims to knowledge made by the dogmatic philosophers, especially the Stoics and Epicureans, by raising the problem of the criterion (Sextus Empiricus, *Outlines*, 1. 21). To answer questions about how a person has acquired knowledge of something, rules of evidence need to be offered. Reasons need to be given. The reasons which support a truth claim (or a value judgement) need in turn to be supported. This

eventually leads to an infinite regress, or to circular argument, and not knowledge, they claimed.

Ethically the sceptics rejected positive knowledge of ethical values. For practical reasons they usually adopted a strategy of behaviour that accommodated them to the values prevailing in the community.

Philosophical scepticism began in the Hellenistic age with the teaching of Pyrrho of Elis (*c.*363–273 BC). His goal was peace through an apathetic state of mind (*artaraxia*). Freedom from care through an indifferent attitude was the goal of the sceptics in general (Sextus Empiricus, *Outlines*, 1. 8–12).

Pyrrho's ideas were popularized in Athens by his student, Tinion of Phlius (320–230 BC). He used lampoons (*silloi*) to attack dogmatic claims. This form of scepticism claimed to be unable to decide if the dogmas of the Stoics and Epicureans could be proved. Since he was unable to decide if something was fact or error, the wise man should suspend judgement until proof could be offered.

In the 3rd century BC a more radical form of scepticism appeared. The Middle or New Academy of Plato became the centre of Academic scepticism. The first of the Academic sceptics was Arcesilaus of Pitane (*c.*316–240 BC). His arguments attacked the Stoic criterion of knowledge.

The most important of the Academic sceptics was Carneades of Cyrene (*c.*215–129 BC), who also headed the Academy in Athens. He taught that nothing can be known with certainty, but that there are degrees of probability which will assist the wise when deciding how to act. He was succeed by Clitomachus (Hasdrubal) of Carthage (*c.*270–200 BC). Clitomachus was a dedicated popularizer of the arguments of Carneades. Little remains of his 400 works.

The later sceptics revived Pyrrhonism at Alexandria. They include Aenesidemus of Cnossus (*c.*80 BC–AD 30), Agrippa (dates are unknown), and Sextus Empiricus (*c.*AD 163–210). The last of these preserved the sceptic tradition. In his works Sextus discusses the methods of his predecessors including the use of modes (tropes) of doubting used to attack empirical claims. Essentially these pile enough differences in sense impressions to create doubt, so suspension of judgement is warranted. He also presents arguments for attacking rationalist claims to knowledge.

Eventually Greek teachers and Roman students of the Academy, such as Cicero, were to spread scepticism to Roman literature where it would be refuted by Plotinus and Augustine. The success of these critiques of scepticism was to last for over a thousand years.

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See also **Philosophy**

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SCHOLARSHIP, HISTORY OF

Whether there is any Greek word that corresponds to the English ''scholarship'' may be doubted. Nevertheless it is clear from what is known of men of letters in antiquity that they engaged in activities that would fall within any ordinary definition of the term. The understanding and criticism of literature were stimulated by the existence of schools where Homer and other poets formed a substantial part of the syllabus, and the teacher was forced to explain the texts and answer questions. Apart from the numerous minor linguistic difficulties arising from archaic words in Homer there were bigger questions: how could one interpret suitably such passages as Hera's approaches to Zeus in *Iliad* 14 or the tale of Hephaestus catching Ares and Aphrodite in flagrante delicto in *Odyssey* 8? For that difficulty it seems probable that the method of allegorical interpretation was invented, apparently by Theagenes of Rhegion (*c.*525 BC).

A desire to illuminate literary history and the origins of genres becomes visible in Aristotle's circle in such works as his *Homeric Questions* or the lists of dramatists who had won victories in the competitions at the Athenian state festivals, and a teleological view of the world was naturally conducive to such inquiries. But most of what would nowadays be considered literary scholarship (I leave out of account philosophical monographs and commentaries on Plato and Aristotle) appears to be the invention of men working in Alexandria in the 3rd and 2nd centuries BC. The librarians at the Museum collected Greek literature systematically, and they must soon have been puzzled

and dismayed by the number of texts that had unintelligible passages resulting from careless transcription, or – worse still – by serious discrepancies between copies of the same text, a problem very noticeable in the case of Homer. There were also questions of authenticity. Though our sources of information on all these matters are very fragmentary, it is clear that discussions in the Museum led to the development of a number of aids for the reader, some of them mundane, such as the possibility of marking the accents so as to facilitate reading or the insistence on dividing lines of lyric verse so as to respect the metrical units, and others more sophisticated, such as the use of symbols in the left-hand margin of texts to advise the reader of certain problems raised by the passages in question. And with all this there had to be a second-order literature, i.e. books about books. Some of these were detailed commentaries on the texts, in others the critic expounded a topic and offered solutions to the problems, sometimes with an explicit mention of the principles by which puzzles might be solved. An enormous quantity of such literature was produced in antiquity. The most important scholars and critics were Zenodotus, Callimachus, Aristophanes of Byzantium, and Aristarchus. None of their work survives in its original form; at best we have brief citations, more usually a substantially rephrased and abbreviated version of their views, often not specifically attributed to the original author. So it is not always clear to whom we owe the best ideas; it is for instance a matter of debate whether Aristarchus is to be credited with the important maxim that "Homer should be illuminated from Homer", in other words that one needs to explain difficulties as far as possible by looking elsewhere in the writings of the same author. The question then arose whether a unique feature could be accepted, and one anonymous scholar formulated the necessary principle that in Homer there are many unique words, without which there would have been a temptation to deal drastically with the text. As it was, some critics declared a number of passages "improper" for one reason or another, but fortunately they did not go so far as to delete the lines in question, which would have had disastrous consequences, since their judgement now seems to us to have been at fault in most cases. Nevertheless there are many stimulating observations to be found in the surviving sources, for example the note that remarks that in the first book of the *Iliad* there are no similes, or the statement attributed to both Aristophanes of Byzantium and Aristarchus that the end of the *Odyssey* is to be placed at line 296 of book 23. It is therefore extremely unfortunate that the only critical monographs to survive from antiquity in their original form are not by the leading scholars of the period *c.*275–150 BC but works of later date or of marginal interest. The earliest appears to be a discussion of Aratus' and Eudoxus' *Phaenomena* by the astronomer and geographer Hipparchus (*c.*150 BC); the most famous, assuming it to be genuine, the brief *Techne Grammatike* of Dionysius Thrax (*fl. c.*150–90 BC); others are an essay by one Heraclitus (1st century AD?) on allegory in Homer and part of a commentary by Didymus (1st century BC) on speeches 9–11 and 13 of Demosthenes; this is a careless and unimpressive piece of work by a man whose fluent pen made him almost proverbial.

Any author of reasonably high quality could become the subject of a commentary, especially if his works were adopted for the school curriculum. But the lion's share of attention went to Homer, a fact reflected in the bulk of the surviving scholia, that is, notes written in the margins of medieval manuscripts but deriving from ancient monographs. One especially famous manuscript of the *Iliad* (Venice, Biblioteca Nazionale Marciana, gr. 454) has preserved a quantity of material not known from any other source, with many snippets of information or judgements attributed to their authors. This manuscript gives us an idea of the specialized and detailed nature of studies devoted to Homer, including a great deal of a book by a certain Nicanor (*fl. c.*AD 130), on the correct way to punctuate the more complex sentences in Homer; what was presumably a series of notes presented as a running commentary has been divided into tiny sections and inserted into the rest of the commentary at the appropriate places. A similar fate befell an equally specialized monograph on the lyric metres in Aristophanes' comedies: quite a few excerpts of work by Heliodorus (1st century AD) are embedded in the scholia to Aristophanes.

In the expanding and changing cultural world of the late Hellenistic period and the Roman empire, the types of scholarship developed in Alexandria continued to flourish and prove their value. In the Greek-speaking Jewish community of Alexandria the Old Testament was studied in the Greek Septuagint version. Difficulties in the text had already been expounded by one Aristobulus (*c.*150 BC), and he may have had some connection with the Museum, since he shows occasional awareness of Greek poetry. When the Christians began to study their sacred texts they too availed themselves of the tools of pagan culture. The most notable figure is Origen, active in Alexandria from 202 until 223, then in Caesarea until 253. He and some of his successors were keen exponents of allegory as a means of interpreting the scriptures, but he was also aware of other scholarly methods, and in his remarkable *Hexapla* he produced an edition of the Old Testament set out in six columns, a somewhat clumsy forerunner of the critical apparatus typical of modern scholarly editions. Origen was not unwilling to use the techniques of the pagan scholars of Alexandria in dealing with the Bible; the same is true to a greater extent of the members of what is generally treated as a rival school in Antioch, whose leading exponents Diodore of Tarsus (d. 394) and Theodore of Mopsuestia (350–428), though ignorant of Hebrew, showed an acute awareness of the problems of translation.

Just as there had been commentaries on Homer and other pagan classics, so too there were commentaries on books of the Bible, and by the early 6th century the number of such texts, though probably not equal in bulk to what had been written about the leading pagan classics, was substantial. But it was difficult, especially in an age of declining economic resources, for readers to find copies of all the commentaries they might wish to consult, and frequently there was repetition of material. A solution was found by selecting and amalgamating notes from existing commentaries or monographs; the new collections of material, generally known as scholia on pagan texts and catenae on books of the Bible, could be fitted into the margins of the codex form of book that had replaced the roll and become standard since *c.*AD 400. It is not known exactly when and where this important and time-consuming operation took place, but catenae are perhaps the invention of Procopius of Gaza (*c.*475–538), a leading member of an intellectual circle in which devout Christians continued the study of the pagan classics as part of the educational curriculum. Catenae and scholia, though very similar, exhibit one important difference:

whereas material on pagan texts rarely gives the name of the scholar who is being quoted, many catenae make a point of naming the authors of each extract, and it is interesting to note that catenae preserve a fair number of observations by Church Fathers such as Origen and Theodore of Mopuestia who subsequently fell out of favour.

Since the 2nd century AD Greek literature had been dominated by the archaizing Atticist movement, which obliged authors to imitate as best they could the language of acknowledged masterpieces written when Athens was at its peak. Manuals of correct usage were produced in abundance; we still have those compiled by Moeris, Phrynichus, and Pollux. The fashion lasted much longer than might have been expected. Classical texts were studied as much for their stylistic qualities as their power to instruct or edify, and their place in the school syllabus was barely affected by the spread of Christianity. Authors were equipped with scholia so that teachers should never be at a loss when questioned by pupils, and what had been done for pagan authors was replicated for the one significant addition to the corpus of *Kunstprosa*, a selection of 16 orations by St Gregory of Nazianzus. No other substantial alterations seem to have been made to the curriculum and essentially the educational system remained unchanged until the end of the Byzantine empire.

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See also **Books and Readers; Education; Libraries; Museum of Alexandria**

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SCHOOLS AND UNIVERSITIES

The word "school" is of Greek origin: *schole* means "leisure, liberty from waged work and affairs of state". This leisure time could be devoted to scholarly studies. In this way the place where such occupations were practised received the same name. Through Latin (*schola*) the term then passed into many European languages. The "university" (from Latin *universitas*, "totality, teaching staff"), however, is a product of medieval western Europe; it did not exist in an institutionalized form in the Byzantine empire. Nevertheless facilities for a higher scholarly education already existed in Classical times (and later in the Byzantine period), but one should rather speak of academics or colleges.

An essential aspect of schools and academies in antiquity and in Byzantium is that they were mostly organized on a private basis. The state was not responsible for education and therefore there was no compulsory schooling or any continuous support for academics – it happened only occasionally that some project received support – or any permanently employed teachers. On the other hand, society as well as state authorities had an interest in passing on the cultural values of their civilization to the younger generation to make good citizens of them. In addition, the state was intent on getting good staff for its civil service and thus had a natural interest in enabling children and young people to obtain a comprehensive general education.

Fixed educational forms existed from approximately the 6th century BC. One of the few organized schools of this period was to be found in Sparta. Boys there were educated under state control between the ages of 7 and 29. In addition to elementary teaching in the basic principles of reading and writing, music and sports were taught. To a large extent the education was oriented towards the military in order to prepare boys for a life as soldiers. Girls received a similarly regulated education meant to prepare them for their social roles as mothers and educators of their children.

These elementary schools, which were mostly private, were also found in other regions of Greece. In Athens this educational form must have existed from at least the 6th century BC, as widespread writing skills demonstrate (e.g. written votes for citizens). Normally, elementary schools were run by a single teacher (the so-called *grammatistes*, from Greek *gramma*, "letter") who taught children between the ages of 7 and 14 in his private room. The furnishing was scanty: an easy chair for the teacher, simple benches or stools for the pupils, no tables. Wax tablets and slate pencils or papyrus and ink served as writing materials. The lessons at the *grammatistes* consisted of writing, reading, and arithmetic. Children learned to write by a strictly systematic, bottom-up method: first single letters, then syllables, and finally whole words. Reading was practised in the same way. Memorizing and reciting texts went together with reading them. The pedagogical method was limited to passive instruction, and corporal punishment often used. Since the elementary schoolteacher had to support himself from grants by his pupils' parents, his social standing was not very high. Nor was there any special training for teachers; anybody who could write and read was allowed to act as a teacher. There were no fixed holidays, but no lessons took place on the numerous monthly feasts and holidays.

In the 5th century BC it was the sophists (primarily philosophers and scholars who truly distinguished themselves as educationists) who, more than any others, helped to raise education to a higher level. They gathered young people around them to offer them a more ambitious intellectual training that lasted several years. This was, however, a collective instruction rather than an institutionalized schooling. The sophists were "travelling teachers" who went to different regions and villages demonstrating their knowledge in order to gain new trainees.

From about the 4th century BC true schools were created instead of individual educational schemes. They provided a secondary education that lasted two years. Boys especially,

after finishing elementary school, i.e. at about the age of 14, were instructed – sports and military training apart – in theoretical subjects to achieve the so-called *enkyklios paideia* (''all-round, general education''). Besides scientific subjects (viz. geometry, arithmetic, music, astronomy) literary studies were mostly pursued. The Classical Greek writers – mainly poets, but also historians – were read, and their works were analysed and explained from a lexical and a grammatical perspective as well as in relation to their contents. The theory of grammar, which was an independent discipline, was treated too. Moreover, pupils had to do practical exercises in the form of literary essays.

These educational institutions, the so-called ephebic colleges (from Greek *ephebos*, ''boy who has reached puberty''), were dependent on the particular town or municipality, which undertook to pay the teachers (Greek *grammatikos*, ''grammar teacher''), though often private donors had to help out. Originally, these schools were compulsory for young men but over the centuries they gradually became elite schools for rich parents' children in the same measure as instruction in the humanities became more significant. The teaching place was the so-called *gymnasion* (the German term *Gymnasium* corresponds to the English ''college'') which originally meant sports field. There were comparable higher schools for girls, but here instruction was limited to music and literature.

In the Classical and Hellenistic periods it is impossible to draw a clear line between secondary and higher education. But scholarly instruction concentrated on such subjects as rhetoric and philosophy, which were seen as the main pillars of education. Specialized teachers, i.e. rhetoricians or sophists, gathered groups of pupils around them and trained them – over a period of up to five years – in theoretical and practical rhetoric in a private and friendly atmosphere. From the 2nd century BC Rhodes was particularly famous for its rhetorical schools. There were schools for philosophy as well, as in Athens, where teachers conveyed their philosophical opinions in lectures and personal conversations with the pupils, together with explanations of Classical authors. The two kinds of higher education competed with each other, but also mutually influenced each other. Teachers in these institutions had a high social standing, often occupying honorary state positions. It is striking that no professional training conveying practical skills (except for medicine) was offered in the higher schools. Special skills could only be acquired by practising with a specialized instructor.

In late antiquity the state, represented by the emperor, increasingly intervened in educational policy in order to induce the towns and municipalities to open new schools and to ensure the teachers' payment. There were practical reasons for this, since the state needed trained civil servants for administrative tasks. Christianization did not have any far-reaching influence on school education since religious education was regarded as the responsibility of the parental home. Schools continued to pass on Classical ''pagan'' values. As to higher education, centres for special subjects arose in different towns of the empire: Antioch for rhetoric, Athens and Alexandria for philosophy; Berytus (Beirut) for the new subject jurisprudence (under the influence of Roman legislation).

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See also **Education; Rhetoric; Sophists**

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SCOPAS *fl.*360–335 BC

Sculptor

Though Scopas is counted as one of the greatest of Classical Greek sculptors, our definite knowledge of him, as with all named ancient sculptors, is slight and partially suspect. What we can reasonably guess from suggestive but unreliable traditions and remains widens our discernment but is also more hazardous. The remaining sculpture and testimonia, however, are so important for our understanding of ancient Greek art and so beautiful that we must make the effort: unreliability is not negation. And the ancient Greeks were excellent judges of their art, so that the traditions, even if unverifiable, can lead our eyes and minds to a just appreciation. Because Scopas was traditionally one of the three great sculptors of the late Classical age – the decades before Alexander's conquests – there are old traditions, modern attributions, and influences. Out of them an artistic personality emerges.

After the triumphs of the 5th century BC, 4th-century BC artists, while maintaining the basic Classical stylistic criteria of idealism combined with realism, felt the need to change and experiment. Where Praxiteles of Athens (Scopas' main rival) was sensuous and soft in his development of the female nude, and Lysippus of Sicyon interested in reforming the proportions of the male nude (providing, for example, a longer body and a smaller head) in portraits and increasing movement, Scopas of Paros was famed for emotional intensity, for a tragic, which means noble, sense of man's intense struggle. These three sculptors dominated the 4th century BC in the way that Myron, Phidias, and Polyclitus had dominated the 5th century BC, and determined much ancient art for hundreds of years – to Hadrian and beyond. Like their contemporary Plato, they looked to the towering past for their ideals and to the uncertain future in their ideas.

According to Pliny, Scopas was the son of the Parian sculptor Aristandros (working in 405 BC); Scopas is documented as active between 360 and 335 BC. Probably because it is the source of the world's most translucent marble for sculpture, Paros had a long sculptural tradition, including Aristion in the Archaic age and Phidias' pupil Agoracritus in the high Classical age. Scopas, who worked mostly in marble, was to be the greatest in this unbroken line.

We know that Scopas was as esteemed in his own age as in succeeding ages, because he was employed to work on the great projects of the period, including the temple of Athena Alea at

Tegea, the Mausoleum of Halicarnassus, and the temple of Artemis at Ephesus. It is from the first of these that we get the best idea of his style.

At Tegea in the Peloponnese Scopas was an architect as well as a sculptor. The original temple had burned down in 395 BC and Scopas was at work some decades later. (The nearby temple of Nemea is so close in style and date that it seems that Scopas was active in the neighbourhood.) Pausanius says of Tegea: "The present temple is far superior to all other temples in the Peloponnese on many grounds, but particularly as regards its embellishment and size" (8. 45). The temple is the best example of 4th-century BC Doric; it was peripteral with a pronaos and opisthodomos and very narrow. Though it was Doric, Scopas brought from his home island a new spirit of lightness and delicacy: the columns were slender, and the interior columns were very early Corinthian with Ionic elements. On one of the pediments Scopas sculpted the *Hunt of the Calydonian Boar* (whose hide the temple displayed), and on the other the *Battle of Telephus and Achilles in the Kaikos Plain*. Many fragments of these sculptures survive and can be admired in the local museum and in the National Archaeological Museum in Athens. For the temple, Scopas also sculpted an *Asclepius* and a *Hygeia*, whose head, with its expression of divine sweetness, survives (National Archaeological Museum). He also made another *Asclepius* for a temple of Gortys in Arcadia. The squarish warriors' heads from the pediment, though battered, show brooding, deep-set eyes and furrowed brows – the new emotionalism of the 4th century BC.

The Mausoleum of Halicarnassus was the most ambitious monument of its day (355–330 BC), and all good sculptors were eager for employment there. According to Pliny (36. 30) Scopas worked on the frieze of the east side. The panel most usually attributed to him, now in the British Museum, depicts an animated *Battle of Greeks and Amazons*.

Pliny also says (34. 95) that Scopas carved and decorated one of the columns from the famed temple of Artemis at Ephesus, but the remains are too scanty to form a judgement. Of the other statues or copies of statues attributed to him, the finest are probably the deep-eyed *Meleager* (perhaps original) in the gardens of the Villa Medici and the copy of the *Pothos* ("Longing") in the Museo dei Conservatori, both in Rome. For his *Pothos*, Scopas sculpted a youth with crossed legs; his head looks longingly up with melting gaze. The Romans, who starting with Augustus carted off many of his sculptures to their capital, often copied this work, indicating its popularity. The lovely *Dancing Maenad* (a copy) in Dresden is thought to be an example of Scopas' new swirling movement. Callistratus wrote at length about it:

> Scopas, as if moved by some inspiration, imparted to the making of his statue the divine frenzy that possessed him ... The Maenad wrought from Parian marble has been transformed into a real Maenad ... You would have seen that, hard as it was, it became soft to resemble the feminine, though its vigour corrected the femininity, and that, though it lacked the power to move, it knew how to dance in Bacchic frenzy, responding to the god as he entered within ... (*Descriptions*, 2. 1–4)

Hellenistic critics considered that Scopas' forte was statues of the gods, a genre unfortunately very poorly represented among the surviving monuments. We know of a *Heracles* for Sicyon, an *Apollo* for Rhamnous, a bronze *Aphrodite Pandemos Riding a Goat* for Elis, an *Artemis Eukleia* for Thebes, a *Dionysus* for Cnidus, a *Hecate* for Argos, and many more: it seems that Scopas was in demand everywhere.

Given his popularity, originality, and skill, it is not surprising that his influence on the ensuing Hellenistic age was pervasive. It has been especially remarked on in the great *Gigantomachy* frieze from the altar at Pergamum (*c*.180 BC), now in Berlin. Although it can be frustrating trying to recreate the work and thought of a great artist from toppled stones, hopeful assumptions, and guesswork, Scopas will no doubt continue to provoke lovers of ancient art to do so, in the hopes that he may become for us ever clearer and closer.

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See also **Sculpture**

Biography

Born in Paros, Scopas was active as a sculptor and architect *c*.360–335 BC. With Praxiteles and Lysippus he dominated Hellenic art of the 4th century BC. He is known to have worked on the temple of Athena Alea at Tegea, the Mausoleum of Halicarnassus, and the temple of Artemis at Ephesus. In antiquity he was famous for statues of gods.

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SCULPTURE

The mythical Daedalus was viewed in the ancient world as being one of the earliest sculptors in the Greek world. Although

he had associations with Crete, he was later thought to have been an Athenian and a member of the Erechtheid family. His name has been linked to "daedalic" statues, which were recognized by Pausanias in the 2nd century AD. These included a statue of *Aphrodite* on the island of Delos which Pausanias (9. 40. 3) believed had been given to Ariadne by Daedalus.

Daedalus' influence was seen by ancient art historians as giving birth to the Sicyonian school of sculpture in the Peloponnese, which in the fullness of time was to see the appearance of the master sculptor Lysippus. Pliny the Elder (*Naturalis Historia*, 36. 9) retains the tradition that the marble sculptors Dipoenus and Scyllis – thought by Pausanias (2. 15. 1) to be either the pupils or even the sons of Daedalus – settled in Sicyon and made the city a centre of the arts.

Some have seen the creation of monumental sculpture in the Greek world as deriving from contact with Egypt. This tradition, cited by the historian Diodorus Siculus (1. 97. 5–6) in the 1st century BC, links the composition – the Greek term is *rhythmos* – of Daedalus' work with that found in Egypt. Certainly the establishment of a Greek settlement at Naucratis, according to Herodotus during the reign of the pharaoh Amasis, may have facilitated such contact. Whether or not Greek sculpture was derived from Egyptian proportions, it has long been recognized that *kouroi* – naked male statues of the Archaic period – had been carefully designed with set proportions. Such statues were used both as dedications within a sanctuary as well as for placing on tombs. An example of a funerary *kouros* comes from Anavyssos in Attica, where it was erected over the grave of one Croesus who had been killed in battle. *Kouroi* were a regular dedication in the Archaic Ptoan sanctuary in Boeotia.

The Peloponnese, and especially Argos and Sicyon, seems to have been innovative in sculpture, particularly monumental bronzes. Some of the key personalities, fulfilling commissions from both the western and the eastern Greeks, were the sculptors Ageladas of Argos and Canachus of Sicyon. The former is known to have accepted both private and public commissions from the Greek colony of Taras in southern Italy for statues which were erected at Olympia and Delphi, and the latter made a bronze statue for the important sanctuary of Apollo at Didyma in western Asia Minor. Argive sculptors were responsible for a pair of archaic *kouroi* which were dedicated to the Anakes (the Argive version of the Dioscuri) at Delphi; the pair were formerly known as Cleobis and Biton after the sons of the Argive priestess of Hera who according to Herodotus (1. 31) were commemorated by statues at Delphi.

Other schools of sculpture in the Archaic period were located on the islands of Aegina and Naxos. Aeginetan sculptors seem to have been in demand for making victory monuments at Olympia. Marble versions of their work can be glimpsed in the marble pediments, showing the two separate expeditions to Troy, from the temple of Aphaea on the island. The Naxians seem to have had one of the earliest schools of sculpture. Their sculptors made such works as the colossal Naxian *kouros* dedicated at Delos, as well as the statue of the Naxian Nicander who dedicated a *kore* (statue of a young woman) to "the far-shooter of arrows" in the sanctuary of Artemis on Delos. The Naxians also seem to be responsible for a large marble sphinx dedicated at Delphi, where it rested on a 10-m-high Ionic column.

Due to the habit of signing works, a more detailed picture can be derived from Attica in the 6th century BC. It is clear that both Attic and non-Attic sculptors (such as Aristion of Paros) were active in creating funerary monuments (*kouroi* and stelae) as well as dedications in sanctuaries such as the Athenian Acropolis; for example some 17 sculptors – identified by name, and not all of them from Attica – are known to have worked on the Acropolis alone in the late Archaic period. It seems that around the end of the 6th century BC there may have been a move towards specialization either in funerary sculpture or in religious dedications.

The Archaic period also saw the increased appearance of architectural sculpture. One of the earliest uses was on the temple of Artemis at Corfu where the sculptor has conceived of the triangular pediment as a frame for a series of scenes of differing scales, dominated by a large central gorgon. The temple of Apollo at Delphi received new pediments thanks to the generosity of the exiled Alcmaeonid family in the late 6th century BC (Herodotus, 5. 62). The pediments featured rather static individuals, the *korai* differing little from the freestanding figures found dedicated in Greek sanctuaries or as funerary monuments. The late Archaic period also saw the appearance of highly decorated treasuries at the Panhellenic sanctuaries. One of the best known was the treasury of the Siphnians at Delphi, which was noted by both Herodotus (3. 57) and Pausanias (10. 11. 2). The building identified as the Siphnian treasury was decorated with monumental caryatids, a continuous frieze, and pedimental sculpture. After the Battle of Marathon Athens celebrated its victory over the Persians with a small treasury decorated in the Doric style with metopes of the heroes Theseus and Heracles (Pausanias, 10. 11. 4).

After the Persian Wars there was a move away from the static pose of *kouroi* and *korai*. For example, the replacement group of the tyrannicides (Harmodius and Aristogeiton) made by the sculptors Critios and Nesiotes and erected in the Athenian Agora, showed the pair of "heroes" in the process of striking down the "tyrant" Hipparchus in 514 BC; he was in fact the son of Pisistratus and the younger brother of the actual tyrant Hippias. An attempt was made to distinguish between their ages by showing one of the figures bearded, the other beardless. From the 470s BC comes the hollow-cast statue of a charioteer – part of a larger group – dedicated by the Sicilian tyrant Polyzalus of Gela to celebrate a chariot victory at the Pythian games at Delphi.

During the 5th century BC, perhaps due to the increasing use of bronze casting, there were numerous innovations in sculpture. One of the key figures who can be identified in this process was Myron of Eleutherae (in Attica). He is perhaps best known for his discus-thrower (or *Discobolus*) where the sculptor has captured a moment in the swing which would never normally be seen by the human eye. The statue itself, though lost, has been recognized in a number of Roman copies. Before this, victors in the discus competition are likely either to have been shown standing holding a discus, or the nature of their victory would have been identified by the inscription accompanying the statue. Such action poses seem to have been the hallmark of Myron. For example, the victory monument for the runner Ladas was celebrated for capturing the runner leaning forward in anticipation of his prize (*Anthologia Graeca*, 16. 54).

A sense of proportion in sculpture was created by Polyclitus of Argos, apparently a pupil of the Argive sculptor Ageladas. He is known to have been interested in the theory of sculpture and

was said to have written a treatise on the subject whose tenets were then put into practice by his creation of the canon or spear-carrier (*Doryphoros*). Certainly the distinctive Polyclitan pose – straight and flexed arms, head turned to one side, and straight and flexed legs – suggests the formation of a new style which was to have great influence on subsequent generations of Greek sculptors as well as the creation of an image for the Roman emperor Augustus.

Greek victories against the Persians, notably at Salamis and Plataea but also at the Battle of Eurymedon in the 460s BC, led to the production of a number of monuments to celebrate Greek prowess. This civic patronage may have given opportunity to gifted sculptors such as Phidias who not only became one of the chief overseers for the Pericleian building programme at Athens, but also produced some monumental chryselephantine sculptures. Two of his most famous statues served as cult images for the temples of Athena Parthenos at Athens, and Zeus at Olympia. At Olympia itself the remains of the workshop where Phidias did his work have been found. Neither statue has survived, though both are known from contemporary images, such as the Attic Baksy krater, or from Roman copies. Phidias himself also created a monumental bronze statue of Athena Parthenos, apparently made to celebrate the Athenian victory at Marathon in 490 BC, which was dedicated on the Athenian Acropolis; the tip of the spear could apparently be seen as far away as Cape Sunium.

A number of highly sculpted marble buildings were raised in Athens in the 5th century BC as part of the Pericleian building programme. The most notable was the Parthenon, which housed Phidias' chryselephantine statue. This highly decorated building, with a continuous frieze, sculpted metopes, and two pediments, must have required teams of sculptors to complete it. Detailed accounts indicate the progression of the temple. At the same time the Acropolis was given a monumental entrance, the Propylaea, and in the 420s BC the bastion above the entrance received a new temple dedicated to Athena Nike and designed by Callicrates. This Ionic building was decorated with a continuous frieze, and the parapet around the temple was decorated with reliefs. This period also saw the erection of the Erechtheum.

Although much attention is focused on Athens of the 5th century BC some major sculptural schemes were being created elsewhere in Greece. At Olympia Phidias' chryselephantine statue of *Zeus* was placed in a Doric temple which was decorated with a sophisticated pair of pedimental sculptures depicting, respectively, the mythical origins of the games and the battle between the Lapiths and the Centaurs. The temple itself must have been nearly complete in 457 BC, as in that year the Spartans and their allies placed a dedication on the roof to celebrate their victory at Tanagra (Pausanias, 5. 10. 4). One of the architects of the Parthenon, Ictinus, was also apparently involved in the creation of the temple of Apollo Epikourios at Bassae near Phigaleia in Arcadia; although some would dispute this connection, the temple carried an internal frieze showing a centauromachy and an amazonomachy.

This tradition of architectural sculpture produced one of the seven wonders of the ancient world, the Mausoleum of Halicarnassus. This monumental tomb was built for Mausolus of Caria, a former Persian satrap. Although this was in western Turkey, technically beyond the Greek world, Mausolus' widow Artemisia engaged notable Greek sculptors to create an elaborate tomb after his death in 353 BC. The tomb was later dismantled, but it is clear that it had a continuous frieze showing an amazonomachy and a chariot race. Individual portrait statues may have stood between columns and the top was decorated with a chariot. Ancient writers such as Pliny the Elder and Vitruvius associate several Greek sculptors with the project: Leochares, Bryaxis, Scopas, Timotheus, and even Praxiteles.

During the 4th century BC a number of personalities in Greek sculpture emerged. In Athens Praxiteles came to prominence and was particularly celebrated for his creation of a naked Aphrodite displayed in a circular temple at Cnidus in western Asia Minor. Scopas, from the island of Paros, was regarded in antiquity as a rival of Praxiteles, no doubt due in part to having his name associated with the Mausoleum of Halicarnassus. One of the most innovative sculptors of the 4th century BC was Lysippus of Sicyon, who can perhaps be considered the creator of portraiture.

Although the literary sources, especially Pliny, allow us to identify a number of individual artists during the 4th century BC, many extant works are in fact anonymous. These include a group of bronzes from the Piraeus which may have been lost when Sulla destroyed the port in 86 BC. These fine works include an *Athena* and two statues of *Artemis*. Another high-quality bronze of this period is the statue of a youth found in the sea off Marathon.

Attic sculptors continued to make copies of famous Greek works in the Roman period to meet the tastes of the elite in the areas bordering the Mediterranean. A batch of marble reliefs from the Piraeus contains scenes copied from the amazonomachy on the shield of the Athena Parthenos; presumably some educated Roman wished to enhance his villa with elements from this major Athenian monument. An Athenian sculptor, Apollonius son of Archias, signed the bronze herm representing Polyclitus' *Doryphoros* which was found in the Villa of the Papyri at Herculaneum.

Sculpture continued to be created in the Greek east during the period of late antiquity, particularly under the patronage of Constantinople. It includes portraits of local governors, such as those erected at Megara and Athens. Some of the late antique sculpture is in marble, such as the relief of the archangel Gabriel at Antalya in southern Anatolia, derived from the quarries of Proconnesus which had been heavily exploited in the Roman imperial period. Low reliefs continued to be made in the Middle Ages, including representations of the Virgin Orans and Virgin Hodegetria.

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SECOND SOPHISTIC

Literary movement of *c.*AD 60–410

Philostratus (d. AD 249) coined the term "Second Sophistic" to create a connection between current rhetorical practice and the sophists of the Classical period. He marks the beginning of this "movement" during Nero's reign (*c.*AD 60), in the speeches (now lost) of Nicetas of Smyrna. This "Second Sophistic" continued until the sack of Rome in AD 410, and included such rhetoricians as Dion of Prusa, Herodes Atticus, his student Aristides (d. *c.*AD 181), Polemon, and Libanius. Much of the activity of these rhetoricians was in the realm of public performances in aristocrats' mansions, lecture-rooms, libraries, and amphitheatres, mainly in provincial cities such as Smyna, Ephesus, Antioch, and Pergamum, where their displays were often greeted by large, enthusiastic audiences.

Some idea of the variety of occasions for such performances can be gained from the two treatises on "epideictic" attributed to Menander Rhetor (3rd century AD) and from the *Techne* traditionally attributed to Aristides. These include instructions on how to compose speeches in honour of a city, at birthday and wedding celebrations, or to the emperor or other dignitaries. A very important part of a rhetorician's repertoire consisted of "political" declamations recreating mythological or historical situations, for example, a member of the delegation sent to persuade Achilles to return to the ranks (Aristides, *Orationes*, 52). Set-piece descriptions (*ekphraseis*), too, were popular and influential in other areas of literary production, for example in the works of the "novelists" Longus and Achilles Tatius, who are both described as "Sophists" in the manuscripts. The influence of these rhetoricians extends also to the great Church Fathers, almost all of whom were converts who had studied or taught rhetoric, for example, Gregory of Nazianzus (d. 390) and John Chrysostom (d. 407), who was a student of Libanius.

Many of the rhetoricians in this movement were active in state affairs, as ambassadors, as envoys sent to the emperor to speak in his praise or to secure privileges for their cities. So important was their eloquence that Vespasian established a salaried chair of Greek rhetoric, and Marcus Aurelius sponsored a chair of rhetoric that was worth 10,000 drachmas per year. Many later emperors reserved important offices for distinguished rhetoricians, some of whom moved up in the ranks of the imperial court to achieve even higher honours and more powerful positions.

The display speeches of the new "Sophists" were more than mere entertainment. Aristides, for instance, delivered speeches at festivals in all the great cities of the Greek-speaking parts of the empire, bringing to widely disparate audiences a common set of cultural themes and standards of taste and behaviour, fulfilling, in a way, Isocrates' dream of Panhellenism. The Church Fathers found in the rhetoric of the Second Sophistic a way of rehabilitating the eloquence of scripture and, in doing so, of helping their fellow Christians to achieve an identity of their own. What is perhaps most striking about this rhetorical movement is the fact that it was almost exclusively Greek, in spite of the dominance of Latin Rome over the entire Mediterranean basin. Even Favorinus, from the Gallic city of Arles, composed and delivered his speeches in Greek. In the Second Sophistic, then, we see no attempt to adapt to the culture of Rome, but a reassertion of Greek cultural values as a unifying force in an empire that was becoming more and more fragmented in the centuries before it collapsed in the west.

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See also **Rhetoric; Sophists**

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SELEUCIDS

Dynasty of Macedonian kings

The name Seleucids refers to the dynasty of Macedonian kings founded by Seleucus I Nicator (*c.*355–281 BC), one of the successors of Alexander the Great. The dynasty dated its beginning to 312 BC (the start of the "Seleucid era") when Seleucus recaptured his original province of Babylon and started on a long career of expansion, during which he assumed the royal title in 305/04 BC. The dynasty lasted until 64 BC when it was overthrown by the Roman general Pompey, who created the

Roman province of Syria. The name Seleucids is used by only one ancient author (Appian, *Syriake*, 48–50, 65, 67). More commonly the rulers are referred to in ancient writers from the 2nd century BC onwards as either "the kings descended from Seleucus Nicator", or most frequently as "the kings of Syria", the "Syrian kings", the "kings of the Syrians", but also as the "kings of Asia"; other designations are found as well. None of these territorial designations originates with the rulers, who never described themselves as kings of any particular country or people: the Seleucid empire thus never had a precise territorial definition. The Seleucids are also frequently referred to collectively as "the Macedonians".

Starting from his province of Babylonia, Seleucus I went on to enlarge his territories steadily, first towards the east and then towards the west. By the time of his death in 281 BC his empire extended from Bactria and the borders of India in the east to north Syria and the eastern Mediterranean, Asia Minor, and even a foothold on the European mainland across the straits. This large empire proved difficult to maintain as a unit, and subsequent rulers were frequently on the defensive against internal and external challenges. Under Antiochus III the Great the empire was able to stage a spectacular recovery, though Antiochus then clashed with the Romans and was defeated by them. The Treaty of Apamea that followed his defeat (188 BC) excluded the Seleucids from Asia Minor north of the Taurus and imposed heavy penalties on them. Of subsequent rulers the best known is Antiochus IV because of his attack on Egypt and rebuff by the Romans (168 BC), and especially because of his failed attempt in 167 BC to ban Judaism at Jerusalem. This is recounted at length in the Jewish tradition (Daniel, 1 and 2 Maccabees) on which Antiochus IV made a profound impact, but receives scant mention in the extant Classical sources (Diodorus, 34. 1; Tacitus, *Histories*, 5. 8. 4–5). After his death in 164 BC the dynasty was increasingly prey to internal dynastic conflicts as well as external intervention. With the defeat and death of Antiochus VII in his Parthian expedition of 130–129 BC the dynasty ceased to play a significant role on the international scene.

The Seleucid contribution to the Hellenic tradition is not easily assessed. The court history that once existed is lost, and other contemporary accounts are incompletely preserved if at all; hence reliance must be placed on later and thus derivative writers, whose ultimate sources are largely unknown. Only two of these give a continuous, but sketchy, account of the history of the dynasty as a whole (Appian's *Syriake*, 2nd century AD; Justin's *Epitome* of the *Philippic Histories* of Trogus Pompeius, 3rd century AD). Whereas Alexander the Great attracted much attention under the Roman empire, the Seleucids were apparently largely neglected apart from their continued reputation in north Syria, especially at Antioch, and were often thought of as kings who had not stood up to Rome. Plutarch's general lack of sympathy for the kings after Alexander is also a relevant factor, as shown by his choice of biographies. The presentation of the Seleucids in the extant literary sources diverges. In one tradition, most clearly represented in the 4th century AD by Libanius of Antioch (*Antiochicus*, 11 especially 100–04; written in AD 360), Seleucus I in particular is presented encomiastically as having extended the Greek world in the east through his city foundations (notably Seleuceia on the Tigris, and the four cities of Antioch, Seleuceia in Pieria, Laodicea, and Apamea in north Syria). Among these, Antioch in particular continued to flourish after the end of the Seleucids as one of the leading cities of the eastern Roman empire. Other writers, dating from the 3rd century BC onwards (Phylarchus, later Posidonius), presented the dynasty negatively as an example of "oriental despotism" and "eastern decadence". This pejorative colouring was further emphasized by Roman propaganda at the time of the conflict with Antiochus III (cf. the speech of the Roman commander Manlius Vulso in 189 BC in Livy, 38. 17: "the Macedonians who hold Alexandria in Egypt, who dwell in Seleuceia and Babylonia and in other colonies scattered throughout the world, have degenerated into Syrians, Parthians, Egyptians"). The presentation in Justin's *Epitome* follows this predominantly negative view of post-Alexander history. In practice it is very unlikely that the Seleucids had any general programme of "Hellenizing" their empire; the action of Antiochus IV at Jerusalem seems to have been strictly local in character (despite 1 Maccabees 1.41), and was in any case soon rescinded. The aims of the kings were probably imperial and dynastic rather than specifically Hellenic. Modern approaches to the Seleucids have fluctuated. In the early 20th century they were presented as champions of Hellenism in the east (E.R. Bevan, A. Bouché-Leclercq, E. Meyer). After World War II Seleucid history was studied increasingly from an eastern perspective, and the Seleucids were presented as continuators of the Persian empire whose centre of gravity lay in Babylonia rather than in the west (P. Briant, A. Kuhrt and S. Sherwin-White), though the approach is controversial. The true identity and orientation of the Seleucids thus remain a matter of dispute.

Macedonian in origin but Greek in culture, the Seleucids used Greek as the language of the court. Their abundant coinage is purely Greek in style, types, and inscriptions, and makes no concession to the eastern world. On the other hand the Seleucids were able to identify at Babylon with native traditions of kingship, and there is much Babylonian evidence for their activity there, though unlike Alexander they made no attempt to connect themselves directly with Persian royal traditions. The Seleucid record in the patronage and promotion of Greek culture appears to be much more limited in all fields than that of the Ptolemies (their rivals) or of the Attalids, and there was no Seleucid equivalent in the cultural field to Ptolemaic Alexandria or Attalid Pergamum. No Seleucid ruler acquired the reputation of being a patron of the arts. This in itself may help to account for their more modest reputation in the general Hellenic tradition.

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SERRES

City in Macedonia

With a population of 50,390 according to the 1991 census, Serres is one of the most populous towns of Greek Macedonia, the second largest in east Macedonia after Kavalla, and capital of the administrative department of the same name. The town's position remains the same as when it was first recorded in antiquity; it occupies the southern slopes of Mount Menoikion, while a vast plain extends to the west and south. Not far from the town, at a distance of about 12 km, flows the Strymon river, a dominant feature of the region. Serres lay close to the Via Egnatia, one of the most important land routes in Roman, Byzantine, and Ottoman times, which linked Thessalonica to Constantinople (modern Istanbul). The development of Serres was much affected by its proximity to that major route.

The first record of the town is connected with events of the 4th century BC. It was probably founded by the Thracian tribe of Odomantes under the name of Sira or Siris, which was later transformed in Serrai/es (the Ottoman Lurks knew it as Siroz). Originally a Thracian settlement, it was open to the influences of Hellenic civilization that came from the Greek colonies on the east Macedonian coast. The process of Hellenization was accelerated and finally completed after the region was annexed to the Macedonian state by Philip II between the years 358 and 355 BC. From 146 BC onwards the region of Serres was incorporated in the Roman province of Macedonia. Christianity was introduced to the region by St Paul, who visited the nearby towns of Philippi and Amphipolis and established a Christian church there. In late antiquity the bishop of Serres was a subordinate of the metropolitan of Thessalonica.

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SHIPS AND SHIPPING

The Greeks of antiquity lived mostly near the sea; the fact and its significance were not ignored (Aristotle, *Politics*, 1271b34). The influences that formed their culture were seaborne as was its own diffusion; their literature from its earliest pages has references to the sea, to ships, and cargoes. The Greeks of the Middle Ages have been described as suspicious of the sea and of commerce. Nevertheless a Byzantine of the 14th century reportedly considered that his city should become a purely maritime commercial power (John Kantakouzenos, *Histories*, 2. 537). In the contemporary world merchant shipping is one (perhaps the only) commercial activity in which Greece is internationally prominent. The Greek-owned merchant fleet is now the largest on earth; members of a nation accounting for about 0.2 per cent of the world population apparently control about 15 per cent of its maritime carrying capacity.

Such facts create an understandable temptation to see a continuity of maritime genius and to stress its importance in the history of the Greeks. To this some writers have succumbed despite difficulties that should encourage resistance. A number of centuries before the 18th are an almost complete blank. From other facts (these include the Italian basis of the modern Greek maritime argot, the very unsettled conditions in the Aegean during part of the period, the feeble representation of maritime Greeks in surviving commercial documents of late Byzantine times, the known maritime strength of other nations, and the beginnings, so far as documented, of the maritime adventure of

the 18th century) it may be suspected that the blank reflects reality rather than lack of evidence or diligence in collecting it. In addition it is not only difficult to assess the importance of shipping but the approach to the difficulty must differ for different ages.

The physical characteristics of ancient ships may be inferred from surviving descriptions, depictions, and wrecks. By the 5th century BC merchantmen and warships were clearly distinguished. The former were known as "round ships" (*strongyla ploia*) or *holkades* or (in the Phoenician context) *gauloi*, the latter simply as ships (*nees*) or long ships (*nees makrai*) or with reference to a specific type *pentekontoroi* (ship with 50 oars) or *triereis* (trireme). The distinction was not only in beam but also the principal means of propulsion, which for merchantmen was sail and for warships, at least in battle, oars. Use of pentekonters by the Phocaeans on their journeys to the west seemed to the 5th century remarkable (Herodotus, 1. 163) and reference to oared merchantmen (Thucydides, 4. 118. 5) is extremely unusual. The date of this functional specialization between speed and capacity is obscure. The earliest surviving picture of a round ship on a pot is from the late 6th century BC (British Museum, London); if the surprise of Herodotus was shared by contemporaries of the events, then round ships should have existed by its earlier years.

The construction of Mediterranean ships, as appears from their wrecks, had certain common features between the late Bronze Age and the end of antiquity. The hull planking is held together by mortice and tenon joints locked with tree nails. In construction the shell would have been built first and the frames added afterwards. The advantage of this method is a very firm hull. Its disadvantage is the skill and time required for the adzing and jointing of the timbers. It seems to have given way to skeleton-based construction (in which the integrity of the hull depends on fixing its planking to the frames) by the 7th century AD. Oak was used for the keel and frequently the frames, fir or pine for the hull planking. Hulls were caulked and often sheathed in metal, lead being found more than copper.

Most merchantmen were single masted with a single square (strictly, rectangular) sail. The sail's angle to the mast could be adjusted and it could be flexibly brailed. Some later ships also had a foremast with a smaller sail. Three-masted vessels must have been very rare. Rudders were oar-shaped and projected astern from one or both sides of the hull.

The capacity of merchantmen may be judged from indications of their cargoes or their dimensions. The stone for some archaic statuary or masonry was carried by sea; there are surviving statues of more than 20 tons and blocks of more than 30. Round ships could carry considerably more. Gifts of grain to Athens in the late 4th century BC are attested in quantities of 3000 *medimnoi* (*c.*120 tons) and less frequently of 4000 *medimnoi* (*c.*160 tons) and they are plausibly whole shiploads. The 3000 wine jars that were the cargo intended in [Demosthenes] 35 are likely to have exceeded 100 tons. A decree from Thasos of the 3rd century BC excludes ships carrying less than 3000 talents (*c.*80 tons) from one harbour and less than 5000 talents (*c.*130 tons) from another. There is evidence of much larger cargoes. Privileges in the Roman period were available in respect of vessels carrying at least 50,000 *modii* (*c.*340 tons) of grain (*Digest*, 50. 5. 3) and there are wrecks of the Roman period with more than 400 tons aboard. The vessel that brought the Vatican obelisk to Rome must have been able to carry around 1300 tons (for the ballast see Pliny, *Naturalis Historia*, 16. 201); vessels with such dimensions seem from the tone of Pliny's reference to have been unusual enough to provoke wonder (cf. The *Navigium* of Lucian for the wonder that a ship of enormous dimensions could provoke). The largest vessel that is known (through a description reproduced by Athenaeus, 206ff.) from antiquity was built in the 3rd century BC for Hiero of Syracuse; its size has been estimated at around 2000 tons. The largest vessels of antiquity thus approached the limits of purely timber construction. It was not until the 19th century that ships became substantially larger. Passengers in considerable numbers are recorded on long-distance voyages: 600 from Palestine to Rome (Josephus, *Vita*, 15) and 276 (including crew) on the ship that took St Paul as far as Malta (Acts 27: 37), this at the extremity of the sailing season.

The speeds of which ancient ships were capable were less important than the fact that they were at the mercy of the winds and weather (the discovery of the periodicity of the monsoon was for this reason very important for Indian Ocean traffic) and that in winter navigation generally stopped (this defined what journeys could be undertaken). A replica of the Kyrenia wreck (*c.*300 BC) has reached 9 knots under sail and records of remarkably fast voyages show that speeds of 5 knots or more could be averaged over several hundred miles. Conversely on a voyage against the prevailing wind a ship was doing well to average 2 knots. The prevailing direction of the winds defined the expected journey times of ancient travel (e.g. fast from the northwest towards Egypt but slow in the opposite direction) and the superimposition of a short sailing season further limited the possibilities. The risks in pushing one's luck with the seasons are accessibly exemplified by Acts 27–28; the story of Paul's journey to Rome is one of the most vivid records (Synesius, *Epistles*, 4 vies with it) of the vagaries of an ancient sea voyage.

As in the modern world, it was much cheaper in antiquity to transport goods over water than over land; to quote a classic inference from the Diocletianic price edict, "it was cheaper to ship grain from one end of the Mediterranean to the other than to cart it 75 miles". Nevertheless, the function and significance of shipping in antiquity are controversial; the divisions in the controversy are aligned with those on the nature of the ancient economy generally. That contradictory accounts of, say, trade in the Archaic period or lending in Classical Athens are pressed on the public with equal conviction is partly due to the nature of the evidence: fragments that may be fitted into different pasticcios whose shape owes more to the restorer than to them. Even apparently elementary questions (e.g. how many of the maritime lenders known from Athens in the 4th century BC were Athenians and/or merchants?) receive different answers because of the opacity of sources that were not composed to satisfy the curiosity of modern scholars. By and large, rival interpreters have not attempted a reconciliation of their differences and the diversity of their views cannot be conveyed in a brief entry.

From the 4th century BC organizational features of shipping that were to endure for centuries (even to the present day) are clearly discernible. Much less can be discerned about earlier periods; this is doubly unfortunate because Greek seafaring

created its most important and enduring monument in the vast diffusion of people and culture of the Archaic period. The mere existence of maritime adventures is easy to establish from a variety of sources: stories in Herodotus (e.g. the fabulous wealth gained by Colaeus of Samos and his crew as a result of an unintended voyage to Spain at 4. 152 or the journeys of the Phocaeans in the far west at 1. 163), the remains of trading settlements at, for example, Naucratis in Egypt (see also Herodotus, 2. 178f.) or Al Mina on the Orontes, fragmentary business documents recovered from trading posts of the outer fringes (Berezan on the north coast of the Black Sea and Pech Maho in the west). Since colonists did not set out for the unknown (Herodotus, 4. 150. 4), their choice of destination depended on information brought back by seafaring adventurers.

To picture their adventures, scholars have turned to the *Odyssey* (the earliest reference to seafaring, Hesiod's advice at *Opera et Dies* 618–94 being concerned with less ambitious journeys) assuming that it is, even when the characters are telling lies as at 14. 192–359, in background realistic. Attention is drawn to the commonality of the enterprise (necessary when a leader needed oarsmen and linked to a historical datum such as the dedication of Colaeus and his crew together) and its close association with the exchange of gifts or prestige goods on the one hand and raiding and abduction on the other. A precisely focused picture is impossible; despite elaborate attempts, the basis, for example, of the distinction between the high status of a Mentes (actually Athena in disguise) in search of copper in exchange for iron at 1. 179ff. and the low status of a trader mindful of his cargo (8. 159ff.) is elusive. It has been suggested that by the end of the Archaic period the wealth of some cities (e.g. Aegina) depended on seaborne commerce.

The 4th century BC reveals a clear separation between hull and cargo interests and the finance of cargo by bottomry loans (under which repayment was contingent on the safe arrival of ship and cargo), a financial device that was to endure into the modern world. There is evidence of elementary economic rationality in, for example, the stipulation of maritime lenders that the cargo was to be worth twice the loan and that the borrower was to borrow no additional sums from others, or the diversion of a grain cargo to a port at which prices were higher (Demosthenes, 56). That hardy perennial, the maritime fraud, also heaves into view (Demosthenes, 32). The status and wealth of the participants and the scale and significance of their activities have been much debated. By and large, throughout antiquity, the masters of vessels and the merchants who travelled with them were of low status and for the most part their means were also modest. When, in the case of late antiquity, comparisons are possible, even the largest merchant fortunes are dwarfed by landed wealth. Arguments from silence indicate the same for earlier periods. The capital, though, for the business either in the form of bottomry loans or even ownership of vessels seems throughout antiquity to have been provided by persons (and later institutions such as the Church) of wealth and status. The amount of maritime activity in antiquity cannot be quantified. On the demand side certain large cities (in chronological order Athens, Alexandria, Rome, and Constantinople) imported a significant proportion of their grain needs over water and attracted delivery of luxuries over considerable distances. On the supply side it is difficult to identify cities for which maritime activity was in itself significant. In the Classical period Aristotle names Aegina and Chios (*Politics*, 1291b24); Phaselis is also possible, later Rhodes is a clear example; with cities such as Alexandria (or for instance Nicomedia in the Roman period) it is hard to tell the relative importance of the maritime activity attested.

The strictly economic effect of maritime activity in antiquity may have been slight, the social status of its participants low by comparison with their counterparts today, and most detail of its organization obscure. These facts do not contradict the assumption of a much wider significance for shipping in antiquity. Already by the 4th century BC a city's access to the sea had effects notable enough for its merits to be the subject of debate (Aristotle, *Politics*, 1327a11ff.). Throughout antiquity ships were the uniting link in the Mediterranean world.

In the 8th century BC Hesiod's father went to sea leaving behind not wealth and prosperity but poverty (*Opera et Dies*, 637–38). The earliest passage on ships and shipping in Greek literature expresses an enduring truth. Poverty pushed the Greeks to sea in the modern period as well, and is now pushing others to replace them.

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See also **Navy; Trade; Travel; Woodworking**

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SICILY

Greek colonization of Sicily began in the second half of the 8th century BC. Information about Sicily's indigenes is based upon archaeology and the untrustworthy evidence of later Greek and Roman writers. Thucydides (late 5th century BC), who took his information from an earlier contemporary Antiochus of Syracuse, whose history of Sicily stretched from the earliest period to 424 BC, relates that the first settlers, if Homer's Cyclopes and Laestrygones are excluded, were the Sicans, who claimed to be autochthonous, though Thucydides considered them migrants from Iberia. After them came refugees from Troy who settled at the western end of the island, where they later intermarried with Phocian Greeks driven there by gales at sea and became the Elymians, whose cities were Eryx (now Erice) and Segesta. Then, some three centuries before the Greek colonists arrived, the Sicels migrated from Italy, and gave the island its name.

Archaeology shows modest trade for 1400–1200 BC between mainland Greece and eastern Sicily, and yields no evidence for connections with Minoan Crete, in spite of the legend of King Minos' expedition against the Sican king Kokalos, which

resulted in a settlement on Sicily by Cretans who found their retreat cut off. The period of destruction and migration *c.*1200 BC which affected the whole eastern Mediterranean and Italy left traces on Sicily as well. But the "Urnfield" culture which is found in central Italy *c.*1000 BC does not appear in Sicily, and archaeology fails to corroborate the tradition of Sicel emigration from the mainland.

The first Greek settlement in the west was not in Sicily, but on the island of Ischia off the bay of Naples *c.*770 BC, followed on the mainland some two decades later by Cumae, some 14 km west of Naples. About the same time, the first colony in Sicily, Naxos, was founded on a headland below Taormina, which was the first landfall a sailing ship coasting eastward along the toe of Italy would reach. Then in rapid succession colonies were planted at Leontini, Catana (modern Catania), Syracuse, Zancle (soon renamed Messina), and Megara Hyblaea. Finally, in 688 BC, Gela was founded on the south coast. The founding city states were Chalcis on Euboea, which founded the four most northerly colonies, Corinth, which founded Syracuse (734–733 BC), Megara (Megara Hyblaea), and in the case of Gela the settlers were Greeks from Rhodes and Crete.

The subsequent history of these settlements varied: Syracuse with its splendid harbour became the greatest city in Sicily, while little Megara Hyblaea was razed *c.*483 BC and its population deported to Syracuse, the wealthy to be absorbed as citizens and the poor to be sold as slaves. Colonies themselves, once established, might send out colonies: Megara Hyblaea founded Selinus (modern Selinunte) in 628 BC, a century after its own foundation, and Gela founded Acragas (modern Agrigento) in 580 BC. Messina founded Himera on the north shore, and Syracuse founded Camerina on the south coast and two inland colonies, Acrae and Casmenae.

The two chief reasons for a city to send out a colony were the promotion of trade and the attraction of arable land, though there were subsidiary reasons in some instances, such as repeated crop failures, or an effort to dispose of potentially troublesome citizen groups. The 8th century BC saw a surge in population in Greece, as well as increased urbanization, marked by the development of the Classical polis (city state) as the unit of government. The pacesetters were the Greeks on the island of Euboea, where the two chief poleis, Chalcis and Eretria, cooperated in founding the first colony in the west on Ischia; but by mid-century Chalcis and Eretria were at war over ownership of the Lelantine Plain in Euboea, and Eretria, the loser, was sidelined. Corinth, an ally of Chalcis in the Lelantine War, was not far behind, and pottery from Corinth was to dominate Sicilian markets until the mid-6th century BC, when imports from Athens displaced it. Colonial foundations were state ventures: the government of the founding city organized the venture, usually consulting Apollo's oracle at Delphi first, and, with the oracle's approval and advice, it chose the colonists, generally unmarried men, and selected a "founder" (*oikistes*) who brought coals from the altar of Hestia in the mother city to light the hearth fire of the new foundation. Once arrived in Sicily, the colonists would acquire territory for themselves, preferably by peaceful means, and divide it into parcels (*kleroi*) for themselves. An urban centre was laid out with an agora as a place for commerce and city government, which, like contemporary polities in Greece, would be an aristocracy. The colony became itself a polis, politically independent, though it might be bound to its mother city by ties of sentiment, and if it in turn founded a colony, it generally invited a citizen from the mother city to serve as *oikistes*. Religion, too, came to the colonies as aristocratic possessions; at Megara Hyblaea, for instance, a century passed before a public temple was built in the agora.

The attitude of the native Sicels and Sicans to the Greek invasion varied. At Megara Hyblaea a Sicel king, Hyblon, helped the colonists find a site on his territory after their first attempts failed. Possibly he hoped for a buffer between his kingdom and Syracuse, for the Corinthian colonists led by their *oikistes* Archias seized their site by force, and once established, Syracuse reduced the Sicels in their territory to serfs called Killyrioi. The native policies of the Dorian Greeks differed from those of the Chalcidian foundations, which maintained generally friendly relations with the Sicels. But both Syracuse and Gela were assimilationist: Gela expanded at the expense of the Sican chiefdoms, and Hellenized as it expanded, and its foundation of Acragas in 581 BC marked the culmination of its westward advance into Sican territory along Sicily's southern shore. There was little overt native resistance to Hellenization, though in the mid-5th century BC a Sicel chief named Ducetius tried to launch a national movement, and captured an outpost of Acragas *c.*450 BC. But Syracuse came to Acragas' aid; Ducetius was defeated and exiled to Corinth, and though he returned and founded a city at Caleacte (modern Caronia Marina), he was no further threat to the Greeks.

The physical remains of Greek Sicily furnish impressive evidence for great wealth in the 6th and 5th centuries BC. On the acropolis of Selinus are the ruins of four Archaic temples and on a low hill to the east are three more, of which the 5th-century "Temple G", measuring 50×110.4 m, is one of the largest temples ever built. Yet it was rivalled by the great temple of Olympian Zeus at Acragas. The growing wealth and population brought with it social unrest, and the names of various early tyrants have survived: Acragas had the dictator Phalaris (*c.*570–555? BC) whose cruelty was legendary: he was said to have a hollow bronze bull in which he roasted his enemies, and their cries issuing from the bull's mouth sounded like lowing! Historical sources become firmer by the end of the 6th century BC. At Gela two brothers, Cleander and Hippocrates, sons of an Olympic victor, ruled in succession from 505 to 491 BC, and after Hippocrates died in battle with the Sicels, his cavalry commander Gelon, son of Deinomenes (hence the name "Deinomenid" for the dynasty), succeeded, first as protector of Hippocrates' sons and then as tyrant in his own right. In 485 BC Gelon captured Syracuse where the aristocratic landowners, the Gamoroi, who had been driven out by the commons allied with the Killyrioi, had appealed to him, thereby giving him an opening. Then he transferred to Syracuse more than half the population of Gela which he entrusted to his brother Hiero, and rapidly added Gamarina and Megara Hyblaea to his empire as well. Theron, tyrant of Acragas (488–472 BC), became an ally early in Gelon's career and gave his daughter Demarata to him as wife. The Theron–Gelon power bloc was ominous enough that when Theron took Himera, expelling its pro-Carthaginian tyrant Terillus, Carthage, which had planted footholds in western Sicily first at Motya, then at Panormus (modern Palermo) and Drepana (modern Trapani), reacted by mounting a major invasion which was utterly defeated at Himera by Gelon and

Theron. A temple of Victory was built on the battle site at Himera, and a twin was built in Syracuse, where it still survives as the cathedral of the city. The Carthaginian attack took place in the same year, 480 BC, as the Persian invasion of Greece, and Pindar in his first *Pythian* written ten years afterwards in honour of a victory by Gelon's heir, Hiero, in the chariot race in the Pythian Games at Delphi, associates the victory at Himera and the Persian naval defeat at Salamis under the common motif of saving Hellas from slavery, while Herodotus reports a Sicilian tradition that the two victories were on the same day. This seems to have been the beginning of the myth that made Carthage a western outpost of orientalism, which in concert with Persia sought to extinguish western civilization at its birth.

Under Hiero, the Deinomenid dynasty rapidly lost its popular support, and his brother Thrasybulus, the next tyrant, was expelled by the Syracusans with support from Acragas, Himera, Gela, and Selinus, with some Sicel help. The following years in Sicily marked a democratic interlude, though political life remained turbulent, and there was sporadic warfare among the cities. In Greece itself, Athens emerged from the Persian Wars with a sea-based empire which showed an interest in Sicily, but it was not until after the Peloponnesian War between Athens and Sparta broke out in 431 that Athens undertook military intervention. In 427 BC it sent 20 warships to help Leontini against Syracuse; apparently its motive was to block grain exports to Sparta's allies in the Peloponnese. In 415 BC Athens again dispatched a large expedition on a Sicilian venture, ostensibly to help the Elymian city of Segesta against its neighbour Selinus. But its forces became bogged down in a siege of Syracuse and in 413 BC they were completely destroyed. Yet the Athenian intervention had disturbed the balance of power in Sicily, and Carthage, which after its defeat at Himera had remained at peace, intervened, whether from opportunism or because it thought its interests were threatened. In 410 BC it grasped an appeal from Segesta which was again menaced by Selinus. The Carthaginian invasion force destroyed Selinus and Himera in 409 BC, and three years later Acragas fell, followed by Gela and Camarina. In Syracuse, which had been torn by civil strife between the democrats and the moderate oligarchs, the defence was led by Dionysius, who had been a young lieutenant of Hermocrates, the leader of the Syracusan resistance against the Athenian expedition. Hermocrates had been exiled for oligarchic sympathies, and died in a failed coup d'état in 407 BC. Dionysius I was to emerge as the most famous of Sicily's tyrants.

From 405 BC, when Dionysius' career began, until the Roman conquest, Sicily's political history centres around a group of colourful tyrants. Dionysius, whose rule lasted 38 years, was a precursor of the Hellenistic monarchs who dominated the Greek world after Alexander the Great. Like them, he exploited dynastic marriages: he himself took two wives, one a Syracusan and the other from Locri in Magna Graecia, and he arranged political marriage alliances with his daughters. He converted the oldest section of Syracuse, the island of Ortygia, into a fortress for his courtiers and mercenary soldiers, and Greek tradition preserved legends about his elaborate precautions against assassination. He treated neighbouring cities ruthlessly, and bolstered Syracuse's defences with a rampart surrounding the Euryalus ridge which runs westwards from the city for several kilometres and at its western point built a fort which survives as the Castello Eurialo, though it has been much altered since Dionysius' day.

Against Carthage Dionysius fought with varying success: in 396 BC he won an overwhelming victory, aided by plague which broke out among the Carthaginian troops, and he turned back fresh attempts in 393 and 392 BC. But some five years later he suffered a defeat and he was in the midst of a new campaign against Carthage when he died and was succeeded by his son by his Locrian wife. Dionysius II preferred a softer, less active life and made peace.

The involvement of the philosopher Plato with the regime of Dionysius II is a curious adventure, described by Plutarch and by Plato's own *Seventh Letter*. Plato visited Syracuse in 388 or 387 BC and met Dion, the brother of Dionysius I's Syracusan wife. After Dionysius' death, Dion persuaded Dionysius II to invite Plato to instruct him on kingship. Plato made two trips to Syracuse; the first achieved nothing and he left for home in 366 BC, and his second visit, five years later, was equally unsuccesful. He failed to persuade Dionysius to recall Dion whom he had exiled to Greece.

However in 357 BC Dion returned with 3000 mercenaries and expelled Dionysius, but Dion's government rapidly became a disguised tyranny, and in 354 BC he was overthrown and killed by his own soldiers. Sicily lapsed into anarchy which not even the return of Dionysius II in 347 BC could quell, and, faced with a renewed Carthaginian threat, a group of Syracusan exiles appealed to their mother city Corinth, which dispatched the Corinthian citizen Timoleon with ten ships and 700 men to Sicily.

Timoleon's public career in Sicily lasted only from 344 until 337 BC, when he resigned his powers, but during this period he defeated Carthage and forced it back into the west corner of the island, deposed the tyrants in the Greek cities, and set up a moderate democracy in Syracuse. Exiles were recalled, 60,000 new colonists were recruited in Greece, and the ruined Sicilian economy revived. In retirement he continued to be a respected counsellor of the new regime, but his intervention checked Sicily's decline only briefly. In 317 BC an unscrupulous demagogue, Agathocles, led an uprising against the Syracusan aristocrats, who were massacred or exiled and their lands redistributed. He was an astute and restless tyrant; in 310 BC, when Syracuse was faced with a new Carthaginian invasion, Agathocles mounted a brilliant counterattack in north Africa itself, which was initially successful, though in the end (November 307 BC) he had to abandon his army there and return home without it. The following year Carthage retreated to its corner of the island and made peace, and Agathocles spent the rest of his life consolidating his power in Sicily and south Italy.

Agathocles' empire disintegrated at his death (289 BC) and he left an unhappy legacy. His Italian mercenaries, who called themselves Mamertines after their war-god Mamers (Mars), seized Messina and used it as a base to ravage eastern Sicily. When they allied themselves with Carthage against Syracuse, the Syracusans appealed to the king of Epirus, Pyrrhus, who had just defeated the Romans in two costly victories in southern Italy in the employ of Tarentum, but had failed to achieve a profitable settlement and was ready for a new adventure. But Pyrrhus, brilliant tactician though he was, failed to expel Carthage from the island, and the Sicilian cities rapidly grew weary of his pretensions. Pyrrhus retired to Italy, where he lost his last

battle against Rome at Beneventum, and Syracuse turned for salvation to one of his former lieutenants, Hiero, by origin a Syracusan. He was proclaimed king after he defeated the Mamertines in 269 BC and his reign lasted until 215 BC.

Rome's first clash with Carthage began in Sicily in 264 BC and the cause was once again the Mamertines. The First Punic War was long and destructive, and Rome suffered terrible manpower losses, but at the end Carthage departed from Sicily, which became Rome's first province. Syracuse, however, remained independent, for Hiero had shrewdly thrown in his lot with Rome, and it was not until the Second Punic War that Hero's son Hiero II broke off the alliance and switched support to Carthage. The Romans thereupon laid siege to the city, captured it, and plundered it thoroughly. In the last years of the war Sicily became the base for Publius Scipio the Younger's attack on north Africa which culminated in the defeat of a Carthaginian army led by Hannibal at Zama, and when the war was over, all Sicily became a Roman province, paying tribute to Rome and governed by a Roman praetor (later a *pro praetore*), who installed himself in Hiero's palace in Syracuse.

Rome increased Sicilian grain production enormously, but the profits flowed into the pockets of Roman and Italian businessmen who built up large estates worked by slave labour. Two slave revolts, which were rare in the ancient world, broke out in Sicily under the Roman Republic, one in 139 BC which lasted seven years, and the other in 104 BC. The revolts did little damage to the cities, however, but the same cannot be said for the misrule of the propraetor Gainus Verres (73–70 BC) whose spoliation of Sicily is described vividly in Cicero's *Verrine Orations* which were published after Cicero prosecuted Verres for corruption before a senatorial court and forced Verres to go into exile without attempting a defence. The civil war which followed Julius Caesar's assassination also hurt Sicily, which was held by Sextus Pompeius for seven years during his struggle with Caesar's heir Octavian, the future emperor Augustus, and this was one factor in the decline of Sicilian wheat production, for Sicilian grain was cut off from its market in Rome. With Augustus, Sicily drew closer to Italy: he gave the Sicilians "Latin rights" and planted colonies of Latin-speaking army veterans at Syracuse, Palermo, Tauromenium, Tyndaris, Catana, and Thermae. In AD 212 all the islanders became Roman citizens.

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See also **Arabs; Carthage; Colonization**

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SIEGECRAFT

Whatever its historical validity, the Trojan War and its traditional length of ten years argue for an almost total lack of siegecraft in the Late Greek Bronze Age. That determined attempts were made to take cities, however, is indicated by the massive fortifications of the time (most notably at Tiryns), and that these attempts were mainly directed at the weakest points, the gates, is demonstrated by the existence, as at Mycenae, of a bastion to enable the defenders to hurl missiles at the unshielded left side of the attackers. Furthermore, although the battering ram is first known from Assyrian reliefs of the 9th century BC, it has reasonably been speculated that one with a reinforced head and slung beneath a wooden frame may lie behind the tale of the wooden horse.

Whereas in the Late Bronze Age only the king's palace and its immediate vicinity were fortified, the polis (city state) that emerged at the end of the Dark Age demanded protection for its much larger urban centre. It was, however, only in the late 6th century BC, against the Persian threat to Greek settlements in Asia Minor, that attempts were made to embrace with walls whole cities (and by the 4th century BC agricultural land as well), and not until the 5th century BC that numerous towers were built to facilitate the hurling of greater concentrations of missiles. However, even insubstantial walls were generally sufficient to withstand most hostile attacks. With the exception of a few very small places (e.g. those captured by Brasidas in Chalcidice), treachery and starvation consequent on circumvallation were the engines of capitulation. This situation was probably due to contemporary emphasis upon the hoplite at the expense of archers and slingers who could have afforded covering fire for the attackers. Nevertheless, expertise in the design and placing of walls and counterwalls by besiegers and besieged made considerable advances (well illustrated in the Athenian siege of Syracuse in 415–413 BC, Thucydides, 6. 63–7. 87).

Siege engines, however, did make a tentative appearance. Rams and "tortoises" (protective sheds) built by a certain Artemon of Clazomenae were introduced by Pericles at the siege of Samos in 440 BC, but Diodorus (12. 28. 3) gives no details. Similarly Thucydides merely mentions (2. 58. 1) "machines" used unsuccessfully by the Athenians at Potidaea in 430 BC. He does, however, describe at great length (2. 75–78) the siege of Plataea in 429–42.7 BC. The mound built by the attackers against the city wall was countered by the erection on that wall of a wooden frame filled with bricks by workmen protected against flaming arrows by screens of hides. The defenders also knocked a hole through the bottom of their wall to withdraw earth from the mound (an action countered by the Peloponnesians' plugging of the gap with heavy reed baskets of clay), and subsequently they tunnelled underneath to remove loose earth from the bottom of the mound. They further built a

crescent-shaped inner wall at this point, a tactic which was to become standard. The blockading Peloponnesians for their part failed to break through with battering rams, because the Plataeans raised up the heads with nooses or snapped them off with beams let down from chains. The attackers' incendiary attempt with faggots piled up against the wall and kindled with brimstone and pitch failed, however, only through rain and the absence of a favourable wind. They consequently resorted, ultimately with success, to circumvallation and resultant starvation. "Machines" on board ships were nevertheless instrumental in capturing two towers on the Megarian island of Minoa in 427 BC (Thucydides, 3. 51. 3); and fire was successfully employed, though only against the palisade of a garrison, at Delium in 424 BC when it was driven through a pipe by bellows (Thucydides, 4. 100).

Huge advances were made in the 4th century BC in siege engines and artillery. Siege towers, possibly learned from the Carthaginians, and arrow-firing catapults, possibly an Assyrian invention, were already being used by Dionysius I of Syracuse at Motya in 397 BC (Diodorus, 14. 48–53), and by the time of Alexander's sieges of Tyre and Gaza in 332 BC siege techniques and machines, including stone-throwing catapults, almost always gave the attackers the upper hand. An eminently sane treatise from the middle of the 4th century BC by an author known today as Aeneas Tacticus (probably the Stymphalian general Aeneas) gives a sobering picture of the strains of a city under siege. It details such things as the organization of guards, scouts, patrols, sorties, and passwords, the smuggling in of weapons, proclamations to the citizenry, the threat of plots, the allaying of panic, and the contrivances needed to counter siege engines, artillery, and sapping. This formidable legacy of technical knowledge was further developed throughout the Hellenistic period. This can be seen, for instance, in Diodorus' account (20. 81–88, 91–100) of the siege of Rhodes in 305–304 BC, which gave its protagonist Demetrius I of Macedon his soubriquet Poliorcetes ("Besieger"), and descriptions (Polybius, 8. 3–7; Plutarch, *Marcellus*, 4–17) of Archimedes' innovations at Syracuse in 213–211 BC.

Technical details of artillery come from four ancient authors. The earliest, a treatise of *c.*240 BC by Biton, supplies instructions for mechanics and includes valuable details on advanced non-torsion catapults. The work of Philon of Byzantium from *c.*200 BC gives critical descriptions of standard and novel torsion catapults. Vitruvius, the Roman architectural writer (*c.*25 BC), is useful for giving highly detailed dimensions, which he probably found in Greek sources. Of Heron of Alexandria in the late 1st century AD there survive two works, one (*Belopoiika*, probably derived from the lost works of Ctesibius of Alexandria) mainly valuable for its descriptions of early non-torsion and torsion catapults, the other (*Cheiroballistra*, but the title may be corrupt) detailing a contemporary torsion weapon with an all-metal frame.

The earliest catapult, the *gastraphetes* ("belly-bow"), had a concavity at the end of the stock which was held against the stomach. An arrow placed in a groove was fired by means of what amounted to a composite bow, whose manipulation was aided by ratchets, pawls, and a triggering mechanism. Its effective range of possibly 200–250 m was somewhat superior to that of the hand-held composite bow (itself known from the Bronze Age). It was subsequently enlarged and furnished with a base to stand on the ground, a universal joint for efficient aiming, and a winched pull-back mechanism, and it could be adapted for stone-throwing. Though superseded by the late 3rd century BC, non-torsion machines reappeared in the 4th century AD and spawned the medieval crossbow.

Probably around 340 BC there appeared also the superior torsion weapons in which, effectively, the composite bow was replaced by wooden arms inserted into "springs" of twisted sinews (and occasionally hair). Of two sorts, the *euthytone* to fire arrows, and the *palintone* to hurl rocks, these swiftly became superbly engineered machines, each being optimally designed for the length of arrow or weight of shot. They could project also incendiary bombs consisting of pitch, sulphur, tow, etc. packed into pots (and, if sources are to believed, on one occasion, by Hannibal, even live poisonous snakes). The *polybolos* ("multithrower") described by Philon had an ingenious ammunitionfeed for rapid firing. Such engines were used by besiegers and besieged from the ground, walls, siege towers, and ships. The maximum range, at which point accuracy was much impaired, was probably around 500 m. The main defence was padding on the walls to soften the impact of rocks, while the Tyrians erected on their walls mechanically rotating multi-spoked wheels to deflect Alexander's arrows.

Although circumvallation was still commonly practised, sometimes (and often by the Romans) with an outer wall to protect the attackers from a relieving force, offensive weapons besides artillery were also improved. Siege towers reached massive proportions under Demetrius Poliorcetes, his nine-storey monster at Rhodes being *c.*45 m high. On huge pivoted wheels, it was strongly protected and even furnished with mechanical shutters over the catapult ports. His rams too were massive, the largest being *c.*55 m long. Rams were frequently sheathed in iron and their points could be specifically designed to wreak maximum damage on stone walls or wooden gates. The larger ones were sometimes mounted on rollers and many were slung from a penthouse roof by ropes. One such early penthouse of Alexander was surmounted by a 9-m tower to house a small catapult and pots of water to extinguish fires. Scaling ladders were improved, some being protected by attached shields and others mechanically operated. Sapping and counter-sapping techniques developed, including timbered galleries and devices for detecting tunnels, while at the siege of Ambracia in 189 BC pungent smoke was driven in the diggers' faces through an iron tube by means of bellows. Against blockading ships defenders could use submarine stakes in the virtually tideless Mediterranean and fire-ships (as famously at Tyre) while, according to a perhaps over-imaginative tradition, Archimedes employed grappling hooks on chains to lift and catastrophically release ships' prows and also set smaller boats on fire by concentrating on them the sun's rays reflected from shields.

Apart from improvements in architecture the main advances in sicgecraft during the Roman period were in artillery, in the introduction of the *cheiroballistra*, and, by the 4th century AD, the one-armed stone-throwing torsion *onager*.

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See also **Architecture; Technology; Warfare**

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SILK

Silk is a luxurious fabric; it was called *serikon* because it was made by the Seres, the Indian people from whom wild silk was first purchased by the ancient Greeks. The Latin word *Seres* later came to mean the Chinese, when domesticated silk began to be imported from that country as well.

One type of silk fabric from northern India is called "tussah", or wild silk, and comes from the silkworm called the *Antheraea mylitta* of the family *Saturnidae*. This caterpillar, not needing to be domesticated, feeds on different types of leaves, including oak, and produces short fibres of a brown or yellow colour, that result in a fabric less fine and strong than domesticated silk. The date at which silk was first worn or produced in the ancient Near East and Greece remains a mystery, due to the perishable nature of cloth and the lack of precision in the ancient references about it. Biblical references (Ezekiel 16: 10 and 13) to silk and Herodotus' remarks (1. 135) about Median cloth probably refer to wild silk from India. Aristotle seems to have known something of silk processing (*Historia Animalium*, 5. 19. 6). In Hellenistic times a fine transparent cloth was produced called mussel silk, alluding to the threads by which a mussel attached itself to rocks, and most likely made from a mixture of Egyptian linen and Indian wild silk.

The thread of "true" silk, from China, is produced from the cocoon of the domesticated caterpillar, or silkworm, of the moth species *Bombyx mori* of the family *Bombycidae*. This thread is extremely long since the cocoon is spun with one continuous filament and can be woven into a fabric that is prized for its ability to be smooth, thin, and flexible, as well as strong and readily acceptable of dye. According to Chinese tradition, silk production was known from the Neolithic period and originated with Hsi-ling-shi (or Lei-tsu), the 14-year-old bride of the emperor Huang Ti. The legend credits her with the first knowledge of sericulture or the raising of silkworms. Silkworms were selectively bred until they were enfeebled, easily susceptible to temperature changes, unable to walk, and dependent on human attendants to feed them large quantities of fresh chopped mulberry leaves. At maturity the caterpillar spins a cocoon consisting of one very fine, long (500–1000 m) silk thread. The cocoon is then steamed with the caterpillar inside to prevent it from emerging and chopping through the thread. Six or eight cocoons are spun together through a water bath with an elaborate reel-and-pulley system to form a thread thick enough for weaving. It takes about 35,000 worms to produce 5 kg of silk.

Sericulture was successfully kept secret and guarded by the Chinese until the Japanese learned about it in AD 300. In the 6th century AD, during the reign of Justinian, two Nestorian monks were reputed to have concealed silkworms in a hollow cane and smuggled them into Byzantine territory, along with the procedures of sericulture.

The silk trade between China and the west cannot be traced with confidence before 115 BC. In that year the emperor Wu-ti of the Han dynasty initiated trade with Mithridates II of Parthia. Silk thread and cloth, although not the knowledge of its production, would thereafter be exported from China through the Tarim basin, across the top of the Kushan empire in India and, with the Parthians as middlemen, on to the Near Eastern coast, Asia Minor, Greece, and Italy. In exchange for the cloth, according to the annals of the Later Han dynasty, the *Hou-han-shu* (from the 1st century AD), the Chinese traders received gold, silver (both highly desirable due to the lack of such metals in China), precious stones, amber, glass, gold-embroidered rugs, gold-coloured cloth (from Syria and Alexandria), silk cloth of various colours, and fine cloth made from wild silkworms. The reason why the Chinese bought back silk at Merv is because their own silk was a heavy brocade and densely woven. Silk weavers in Syrian cities and Greek islands, such as Cos, specialized in unravelling the Chinese silk cloth and reweaving it into a lightweight, transparent gauze, thereby multiplying the lengths of fabric for sale in Roman cities, increasing their profit, and satisfying the upper-class desire for erotic, sensational fashion. Other fabrics such as flax and wool could also be mixed with it, which the Romans called *subserica* or *transerica*. Cos, in particular, specialized in a purple-dyed silk, famous enough to be called the "Coan purple" by Augustan poets (Horace, *Odes*, 4. 13).

Trade increased with the peaceful conditions of the Augustan era, but Roman authors from the time of the early empire were scandalized by wearers of silk, "clad in which no woman can honestly say she is not naked" according to Seneca. Although Caesar had silk curtains and Caligula, later, was rumoured to have worn silk clothing, many agreed with Tacitus (*Annals*, 2. 33) that "men should not disgrace themselves with silk clothing from the East" and an edict of the Roman Senate in AD 16 prohibited such dress for men. But the gulf between moralistic intellectuals and public desire was vast, and since all four territories along the silk route – China, India, Parthia, and the Roman empire – were peaceful from AD 90 to 130, the Roman empire acquired plentiful supplies of domesticated silk from China during this period, even though it was said to be worth its weight in gold, due to its difficult manufacture, middlemen fees, and long transport from China.

Strabo (15. 693) thought that silk grew on trees and had to be scraped off the leaves. Pausanias (6. 26. 6–9), however, knew that silk came from an eight-footed insect, called by the Greeks the *ser*, and that they were taken care of by the Chinese in special houses; he mistakenly thought that they were fed millet for four years. Missions were sent to China by Maes Titianus and Marcus Aurelius in the 3rd century to acquire more silk and information.

CATHERYN CHEAL

See also **Dress; Textiles**

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SILVER AND LEAD

Silver and lead were probably among the first metals to be smelted and were used throughout the Copper, Bronze, and Iron Ages. The association of these two metals is fundamentally geological. Silver was valued and used in ancient Greece in exactly the same way as other cultures: for coins, plate, and statuary. Lead was used in its metallic form for anchoring the iron clamps used to secure stone blocks, for covering the hulls of ships, and as sinkers for fishing lines and standard weights. It was added to bronze to improve fluidity in casting and for the patina that such alloys develop. In Roman times large quantities were used for plumbing, cooking vessels, and other purposes. Indeed, lead poisoning may have been a significant problem for the wealthier sectors of the population. White lead (lead carbonate-hydroxide) was used in cosmetics, salves, and medicaments.

The most abundant ore of silver and lead is the lead sulphide called galena, which usually contains 0.1 to 0.4 per cent silver and some gold. This silvery-grey mineral, which breaks easily into cubes, may occur on its own, or associated with copper or iron ores. However, in antiquity the ore first exploited may have been the minerals cerussite or anglesite, earthy, pale-coloured, surface-weathering products of galena. These oxidized ores are commonly richer in silver than galena. Some silver may have also occurred as the native metal, silver chloride and sulphide. However, these more easily smelted ores were probably exhausted by the Iron Age.

The raw ore was first purified by washing – a current of water was directed over the powdered ore and the associated minerals, which are lighter than the lead minerals, were removed. Lead and silver were then extracted from the ore concentrate by roasting with charcoal. If the smelting was done at high temperatures under reducing conditions, the silver in the ore was also extracted into the lead. It was then separated by cupellation – molten lead was exposed to a stream of air, whereby the lead and other base metals were oxidized. The silver remained as a molten bead on the lead-oxide slag (lithage). This simple process can yield almost pure silver. The lithage was resmelted with charcoal to recover the lead. Gold is also extracted with the silver but seems to have been rarely separated, although the technology certainly existed. The provenance of silver and lead can be determined from the isotopic composition of lead, which is used as a "fingerprint" for different ore regions.

Lead and silver mines were worked at Laurium, south of Athens, as early as Mycenaean times, but the really rich veins were not discovered or exploited before the 5th century BC, when this area became the principal source of silver for Greece. Initially, weathered ores were extracted, but later shafts were sunk into the primary galena ore. The silver produced in these mines was used in the minting of coins which were the source of much of the wealth of ancient Athens. The lead by-product was widely exported throughout the ancient Greek world, and has been found in western Turkey and Egypt. More than 2000 shafts produced about 8000 tonnes of silver and between 1 and 2 million tonnes of lead during antiquity. Activity ceased by the time of Christ, and was only revived late in the 19th century, but this time for zinc and manganese. The mines are now idle.

The primary ore at Laurium occurs as a replacement of marble near contacts with schists. The ore was formed during Miocene times (between 22 and 6 million years ago) from the watery solutions expelled during the crystallization of a granite. These solutions circulated along cracks in the rock until they reacted with the marble and crystallized galena and other minerals. The ore contained up to 50 per cent galena, but little can now be found in the area, testifying to the efficiency of ancient mining.

Siphnos was another source of silver and lead from the Early Bronze Age, a long time before Laurium, but production reached a peak at about the same time. The wealth of the island at that time is borne out by the opulence of their treasury at Delphi, which they built around 530 BC. During the 6th and 5th centuries BC silver, lead, and gold were produced in large quantities, but the mines were soon exhausted, and from then on Siphnos was poor and unimportant. As at Laurium, the ore formed as a replacement of marble by circulating watery fluids. The source of the fluids may have been metamorphism, or a granite pluton that does not crop out on the island.

The mines at Balya Maden (Asia Minor) have been active since Phoenician times. They may have supplied lead and silver to nearby Troy. They were particularly active from 1880–1940 and have produced about 400,000 tonnes of lead since Roman times.

There were other silver and lead deposits of lesser importance that were exploited in antiquity at Thera, Kimolos, Thasos, Mount Pangaeus, Mount Samsun, and Balya Maden (Asia Minor). Minor amounts of silver were produced from the natural gold–silver alloy electrum, especially at Sardis in Asia Minor.

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See also **Coinage; Metalwork; Mines and Quarries**

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SIMONIDES

Lyric poet of the 6th–5th centuries BC

Simonides was probably born at Iulis, the chief town of Ceos. Most sources set his birth around 557–556 BC (and some *c.*532 BC). Both he and his nephew Bacchylides, also a lyric poet and also born in Ceos, around 510 BC, were steeped in a cultural tradition marked by the worship of Apollo and Dionysus, which most probably accounts for the intellectual rigour and Bacchic enjoyment that marks their poetry in a way characteristic of lyric poetry of the 5th century BC in its entirety.

Simonides' poetry belongs to the new wave of choral lyric that flourished in the first half of the 5th century BC and which is represented mainly by the extant poems of Pindar, and the fragments of Bacchylides and Simonides himself. Simonides' artistic production, spanning the second half of the 6th and the first half of the 5th centuries BC, is situated at the point of transition from late Archaic to Classical art and so registers the developments triggered by this shift, especially in the field of choral lyric. That is, while the poetry is still heavily dependent on religious and other social occasions for its delivery, it also gradually ceases to preoccupy itself mainly with religious themes, and adopts wider political, moral, intellectual, and literary concerns.

No poem of Simonides survives in its entirety. But the extant fragments indicate that he was an expert in a wide range of lyric expression. We have evidence that he composed epinicians, dithyrambs, dirges, paeans, encomia, partheneia, elegies, and epigrams. His elegies included traditional sympotic pieces as well as some historical ones, such as the elegy on the Battle of Artemisium and the one on Plataea, a portion of which turned up in a papyrus published in 1992 (*Oxyrhynchus Papyri*, 3965).

Simonides was a professional poet with great scope and range. Ancient critics praised his elegant lyricism and his colourful and decorative diction, but they also admired his balanced discourse and the smoothness of his composition. The typical noble features of Archaic lyric are juxtaposed in his work with new ethical preoccupations, and sensuous details with gnomic austerity, just as the heroic absolutes of the aristocratic tradition are framed by a more tolerant and flexible world view that is willing to take into consideration inner conflicts and the uncertainties of fortune.

Simonides' work was an important influence on the poetic production of the two other major choral poets of the 5th century BC, Bacchylides and Pindar. And it was especially Simonides and Pindar who persistently incorporated in their poems reflections on the significance of their craft. Simonides regularly quoted and commented on the earlier poetic tradition and is believed to have explicitly compared himself to Pindar. Aligning himself with a strand of the tradition that goes back to Homer and Hesiod and looks forward to Plato and further down to the Hellenistic poets, he also stresses the alluring enchantment, and even falsehood, of song.

The complex relation of Simonides' art to both the preceding and the subsequent poetic tradition is best celebrated by the new fragments of *Plataea* discovered in *Oxyrhynchus Papyri*, 3965. These findings give us a proem to what seems to have been an elegy on an epic-like heroic event, which also happens to be of contemporary historical significance. A proemial hymn to Achilles suggests a parallelism between the Trojan and the Persian wars, thus striking a Panhellenic note that anticipates later historians and rhetoricians such as Herodotus, Thucydides, and Isocrates. Moreover, through this parallelism the Trojans are depicted as barbarians, thus foreshadowing their tragic counterparts in 5th-century Athens. And the connections are not yet exhausted: the new Simonides fragments combine features of Pindaric encomium, Homeric diction and narrative technique, and heroic historiography, all laced with elements of the epitaph and organized by a performer with a remarkably developed persona who dominates the short elegiac poem in a strikingly un-epic way. It is little wonder indeed that critics have detected in Simonides' work a primitive model of the famous Hellenistic features of miniaturization and crossing of genres.

Throughout his long life Simonides was commissioned to work in the courts of many tyrants. He also lived and worked in the cities of the new 5th-century BC democracy. He was notorious for demanding high fees: ancient sources describe him as a money-grubber and Pindar scornfully calls his muse "Muse for hire" (*Isthmian*, 2. 6). However, this mercenary attitude also indicates an emerging professionalism. The poet ceases to be the inspired mouthpiece of the Muses or other divinities and poetic creation is no longer or not mainly their inspired gift: it is rather the combined outcome of skill and practice for which the poet deserves remuneration. Simonides may have been frowned upon for his attitude to money, but his legendary high fees, together with his less solemn tone and a certain deviousness scattered in his poems, make him an important precursor of the secularized art of the sophists of the Classical period.

EFROSSINI SPENTZOU

See also **Poetry (Lyric)**

Biography

Born at Iulis on Ceos *c.*557/56 BC, Simonides may have been employed at the court of Hipparchus. Only fragments of his poems survive but he wrote on a wide range of lyric themes. He was the uncle of Bacchylides. He died at the court of Hieron and was buried at Acragas.

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SINOPE

City on the north coast of Asia Minor

Sinope is the most northerly point on the Pontic coast of Asia Minor, lying west of the river Halys. On a coast which afforded

little shelter, it was praised from at least the time of Strabo for its harbour, a double bay divided by an isthmus on which the city itself stood. In later periods storm-driven travellers were grateful for its haven. These included the Trapezuntine *archon* (governor) of the Crimea in the 13th century, the great Arab traveller Ibn Battuta and bishop Ignatios of Smolensk in the 14th century, Vincenzo Alessandri, the Venetian ambassador to Persia, in the 16th century, and the patriarch of Antioch, Makarios, in the 17th century. From antiquity to early modern times, links with the Chersonese (Crimea) were important, as well as coasting traffic in indigenous products such as timber, iron, and the arsenical compound *miltos* (Sinop red, cinnabar, realgar) for dyeing, while its fish, especially tunny and mullet, were celebrated.

Sinope has traditionally been seen with Trebizond as a colony of Miletus established in the 7th century BC. In recent times an 8th-century date has been proposed and Corinth is credited with its foundation. Perhaps there was a refoundation after the Cimmerian incursion of the early 7th century. From the 6th century connections with Athens were strong, especially after the visit of Pericles about 436/35 which saw the establishment of 600 Athenian settlers at Sinope. Herodotus remarked on its position on the trans-Anatolian route to Cilicia. The coins of Sinope, which circulated widely in the Pontus, typically have the head of the nymph Sinope and an eagle and dolphin. Diogenes the Cynic was a native of Sinope, where his father was a moneyer. Trade with Colchis flourished, as roof tiles and amphorae from Sinope found there show. Sinope provided the ships and supplies for the return voyage of Xenophon and the survivors of his 10,000. After a period under Persian overlordship in the 4th century, Sinope became part of the kingdom of Pontus in 183 BC. King Mithridates V was murdered at Sinope but his son and successor Mithridates VI Eupator (120–63 BC) embellished its buildings and restored its walls. Sinope fell to the Romans under Lucullus and Pompey (the former displayed sculptures looted from Sinope in his garden) and in 45 Julius Caesar renamed the city, which became Colonia Iulia Felix. Under Trajan, Pliny the Younger surveyed the area and built an aqueduct.

In legend St Andrew evangelized Sinope, but in fact the cult of St Phocas, reputedly its first bishop, eclipsed that of the apostle. The 2nd-century heresiarch Marcion was a shipbuilder in Sinope before, it is alleged, his father (who was a bishop) excommunicated him for immorality. East of Sinope at Çiftlik a large basilica with a fine mosaic in a 4th-century style has recently been discovered.

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See also **Pontus**

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SKOPJE

City in Macedonia

The city of Skopje lies along the Vardar river in mountainous country on the north–south route between Thessalonica and Belgrade at a distance of 320 km from Belgrade. The valley near Skopje is flanked by the Sar Planina mountain range, which extends into Thessaly east of Trikkala. In the Roman period the town was called Scupi, an outpost town, which would eventually become the capital of the district of Dardania in the 4th century AD. In AD 518 two events occurred that altered the town's location and name: barbarians sacked it and a disastrous earthquake struck. The town was rebuilt on the Vardar river and given its Slav name of Skopje, which is said to be derived from the Greek word for "episcopal".

Linguists have traced the influence of Greek over three millennia. As early as 900 BC the area was known to be Greek-speaking. The word "Macedonian" can be traced to the Greek "Makedones", high (tall people) or highlanders. The debate is particularly focused on what language(s) inhabitants of the Skopje area spoke. The Macedonian alphabet, primarily Cyrillic, was established as a language in May 1945, and the first primer appeared in 1946 from the University of Skopje. Others debate the extent to which Macedonian is a dialect of Greek. Since the early 19th century, linguists (H. Ahrens, O. Hoffman, G. Buck, J. Chadwick, and G. Babinoitis) have considered the Macedonian language a form of pre-stage Greek, or a dialect related to northwestern ancient Greek.

Artefacts collected from the Skopje area provide evidence of Hellenic cultural continuity. Archaeological finds housed at the museum in Skopje date from the Neolithic period with artefacts such as the "Great Mother". Habitation continued through the Iron Age (1050–650 BC). The Skopje Museum's collection of substantial Hellenistic artefacts, as exemplified by figures such as *Dionysius the Laurel Bearer*, from the 1st century BC, attests to Greek cultural influences. Recent archaeological excavations have revealed more than 5000 inscriptions in Greek on grave stelae and votive offerings. Coinage and sanctuaries dedicated to the 12 Olympian gods supply evidence of Greek influence in Skopjan Macedonia, even when allowing for cultural distinctions.

Historical documents confirm the Hellenicity of the Skopje area and Macedonia. Thucydides (2. 99) wrote that the Macedonian state was founded in the 7th century BC. The historian Polybius documented flourishing Greek culture between 280 and 160 BC. He recognized the importance of Macedonian cooperation with the Greeks: "The Greeks would be for ever the greatest danger, if we did not have as a bulwark the Macedonians and the ambition of their kings."

The inhabitants of the area, as Macedonians, have claimed ancestral links in turn with Illyrians, Dorians, Thracians, Dardanes, and Paenones. The ancient royal house is traditionally said to be derived from Argive origins when descendants of Temenus and Heracles migrated and ruled as a Macedonian dynasty up to the 4th century BC (Thucydides, 2. 99). Herodotus (5. 22) affirmed that the Macedonian tribes were of Greek descent: "And the people originating from Perdiccas are Greeks". Some question the Hellenicity of Macedonia because Demosthenes labelled Philip a barbarian. From this antique

name-calling, it was presumed that Macedonians were non-Hellenes. This presumption does not take into consideration the fact that the word could refer merely to an uncultivated person. Plutarch (*Life of Aratus*) called the Macedonians *allophyloi* (foreigners); but Alexander the Great's ardent support and exportation of Hellenism during his reign is evident.

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See also **Macedonia**

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SLAVERY

Slavery was apparently known already in Mycenaean times, but it is not quite clear to what extent the Mycenaean *doero* meant the same condition as the Greek word *doulos*. Various kinds of unfree people are also to be found in Homer: prisoners of war, women as booty of war, domestics, and servants in agriculture. The origins of slavery lay probably in war and/or indebtedness; the occurrence of the latter greatly increased after about 600 BC, when money was introduced and trade and business expanded. A real slave trade seems to have been established first in eastern Greece and the areas bordering on northern and eastern barbarian countries; from there it quickly spread to commercial centres such as Athens, Corinth, and Aegina. From the 5th century BC onwards, slavery was an established social institution in Greece, and the laws of this institution were (with minor local variants) more or less the same everywhere. A slave was the property of his master and could be sold and bought like cattle; the price (between a half and ten *minae*) depended on his skills and his physical condition. Slaves toiling in workshops, at public buildings, in mines, etc. received the same salary as free workers and could eventually buy their freedom. They had no political rights, but were in some measure protected by the law; they were allowed to marry and have their own money. In Athens a stranger was not allowed to mistreat or beat a slave who was not his property. Slaves often retained the cults of their native countries; in Athens they were even allowed to take part in the mystery cults.

In Classical Greece slaves were mostly "barbarians", including many from Asia Minor, but also Thracians and Scythians; trading places in the Black Sea and cities such as Byzantium and Ephesus were big suppliers of slaves for Greece. Grave stelae, lists of slaves in the Athenian fleet, lists of the workers on the Athenian Acropolis, and inscriptions of slaves who bought their freedom at Delphi show a wide range of countries from which slaves came: Egypt, Caria, Illyria, Lydia, Mysia, Paphlagonia, Persia, Phoenicia, Phrygia, Syria, and others. Pseudo-Aristotle's *Oeconomica* gives the telltale advice not to have too many slaves from the same nation (ch. 4).

The circumstances that brought people into slavery are not always clear; a great number of them were certainly prisoners of war; armies must have been one of the most important sources of supply in Greece (during his invasion of Scythia in 339 BC Philip II of Macedon enslaved and sold 20,000 women and children). Slave traders apparently accompanied armies on their campaigns and instantly bought prisoners as well as other booty. Sometimes barbarian tribes even seem to have exchanged their own people against urgently needed goods; the sentence "You are a noble Thracian, sold for salt" (Menander, fr. 891 Kassel-Austin) was proverbial in Greece. Another source was piracy, which reached a peak in the middle of the 4th century BC (in 334/33 BC the general Diotimus was honoured in Athens for his fight against pirates). The Attic slave trade was centred in Athens and Sunium, the harbour of which played an important role in the import of goods since the beginning of the 5th century BC; from there the slaves could be brought directly into the silver mines of Laurium.

In the ancient world a slave could work in every kind of profession, not just as "mean slave labour"; there were slave doctors, stonemasons at official buildings, soldiers, enterpreneurs, wetnurses, teachers, musicians, artisans (potters and painters), etc. Household slaves made up the majority of the slave population in Greece; considerable numbers were also employed in agriculture. In Athens minor public positions (the police among them) were filled by slaves; these so-called "state slaves" had a salary and their own dwelling. Astonishingly, the police in Athens consisted of Scythians, who were famous for their skills as archers; several times Aristophanes makes fun of them as stupid, stammering, and randy barbarians. State slaves able to write and calculate were also used in the army; if they were killed in action, they were given a state funeral like free citizens, and the survivors were often set free. The many slaves working in the silver mines were an important factor for the Athenian economy; often they were not the property of the state (who owned the mines), but were hired in groups from private masters (the Athenian general and politician Nicias cleverly employed such slave groups to further his own income). Some of these people must have been highly specialized to do the more difficult work (probably they had already been

imported as skilled workers from countries such as Thrace and Paphlagonia which were also renowned for their mines), and they at least had a chance of rising to the post of an overseer; for the great majority, however, working in the mines was by far the worst, most horrible, and most humiliating fate (in this manner the Athenian army captured in Sicily in 413 perished in the quarries of Syracuse). Still, several grave stelae and votives (mostly for gods of Asia Minor and Thrace) found in Laurium show that it must have been possible even for these people to preserve something of their own life and their native cults.

Serving as nurses and pedagogues was another important "profession" of ancient slaves; in Classical Athens Thracian wetnurses seem to have been very popular. From the middle of the 4th century BC on, numerous grave stelae and grave epigrams were dedicated for nurses by their foster children and their families, often containing the same laudatory epithets as for their next of kin. It is remarkable that the Greeks entrusted their children to barbarian slaves and gave them duties with so much responsibility.

It is still an unsolved question how many slaves lived in Classical Attica (assessments range from one quarter to half of the whole population), to say nothing about other regions; it is also disputed how many slaves lived in an average Greek household, as ancient evidence on this question is almost completely lacking. Still, some remarks in comedies of Aristophanes seem to show that a "normal" citizen had at least one slave; even the poor farmer Chremylus has one (*Plutus*, 253ff.), as do the birds (*Aves*, 70, 1579f.), and to have none means utmost poverty for Praxagora (*Ecclesiazusae*, 593). A middle-class family may have had between three and twelve slaves, but this number certainly varied according to place and epoch. In the later 5th century BC there must have been a considerable number of slaves in the silver mines of Laurium, for according to Thucydides (7. 27. 5) 20,000 of them went over to the enemy after the Spartans occupied Deceleia in 413 BC. Compared with other Greek states, Classical Athens (with its leading role in the Delian league) may have had the largest proportion of slaves in relation to its citizens; in any case they always held an important place in the economy.

From the later 5th century onwards, Greek thinkers developed something like a theoretical concept of slavery. Its institution was usually justified by the notion that barbarians were slaves by nature because they had no political institutions for free and equal citizens and because the monarchies in which they often lived were themselves a kind of slavery; therefore, as Euripides put it (*Iphigeneia at Aulis*, 1400f.), "it is right that Greeks rule over barbarians". The thesis of barbarian inferiority and a legitimate Greek claim of dominion over them is also found in Aristotle (who reportedly advised Alexander the Great to treat barbarians like animals and plants), Isocrates, and Plato, who outlined precise laws of slavery in his *Laws*. These sources, of course, primarily reflect political tendencies after the Persian Wars and do not necessarily tell us how slaves were perceived or treated in reality; many grave stelae with touchingly personal inscriptions were set up for loyal slaves and faithful nurses by their masters and show that their relationships were more complex in the real world than in philosophical theory. The Sophists and later the Stoics and Cynics declared that all people were equal and free by nature, and noble slaves can also be found in the plays of Euripides; even the slaves themselves, however, apparently did not question the institution of slavery and had no "class-consciousness" of their own.

In Hellenistic times new areas of trade and new markets (e.g. Delos) led to an increase of slavery; the legislation concerning slavery saw new developments (taxation of slave trade, intensified search for runaway slaves, but also extended asylum rights). Menander's comedies show that there was often a very familiar relationship between master and slave.

During the Roman empire mass enslavement of free people (as a consequence of wars and conquests) increased; but slave revolts (among other places in Attic mines and on Delos) remained unsuccessful. Many Greek slaves (and freedmen) worked in the imperial household and held important administrative posts. The sources (among others Libanius, Justinian's law corpus, Egyptian papyri, the letters of Sidonius Apollinaris) show that slavery was still an important factor in the economy of the late Roman empire; in Byzantine law, slaves still had almost no civil rights, but at least the intentional killing of a slave was now treated as homicide.

The Church's attitude to slavery was ambiguous: while some (e.g. Gregory of Nazianzus) condemned it, others (e.g. Basil the Great) tolerated it as a necessary evil. The Church (following St Paul) usually pointed out that slaves and free men alike were servants of Christ, so that worldly freedom was irrelevant; nevertheless, Christian masters were advised to treat their slaves as brothers.

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See also **Mines and Quarries; Piracy; Trade**

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SMYRNA

City in western Asia Minor

The first ancient Greek settlement of Smyrna was founded in about the 10th century BC on the northeastern shores of the gulf of Smyrna, in what is now the modern Izmir suburb of Bayrakli. Aeolian Greek migrants established their colony here on the site of an earlier Anatolian settlement, but were soon themselves displaced by Ionian Greeks. From this time on Smyrna was considered part of Ionia, though it was not incorporated into the Panionium, or organization of the original 12 Ionian colonies, until the 3rd century BC, following the refoundation of the city. Fortified by at least the 9th century BC, Old Smyrna boasted a fine archaic temple of Athena. It was most famous, however, for its claim, strongly contested by neighbouring Chios, to be the birthplace of Homer. Indeed, still today, Classical scholars generally agree that the Homeric poems underwent their early development in the Smyrna-Chios region: the mixed Ionic-Aeolic dialect of the poems belies their origin in this part of the Greek world, as does also their description of the topography of the Smyrna region. The ancient tradition linking Homer and Smyrna proved to be long-lived and widespread across the Hellenic world: Aristotle, Pindar, Aristides, and Dio Chrysostom, among others, all mention Homer's Smyrnaean roots. By the 2nd century BC coins of Smyrna could be identified by their pictorial device of the seated figure of Homer, shown together with his name. At the turn of the 1st century BC–1st century AD Strabo also details the existence of a Homereion, or shrine to Homer, in the refounded city of Smyrna.

The first Greek city of Smyrna at Bayrakli grew and prospered until *c.*600 BC, when it suffered destruction at the hands of the powerful Lydians. It was never to recover from these destructions, and declined further throughout the Classical period, until by the late 4th century BC it lay more or less abandoned. At this time the second Greek city of Smyrna was founded on the slopes of Mount Pagus, on the opposite (southeastern) shores of the Smyrnaic gulf. The refoundation of the city can perhaps be attributed to Alexander the Great, or alternatively to Antigonus I and Lysimachus. It is this site, gradually and considerably enlarged over the centuries, which has remained in continuous urban use until the present day. Fortified from the beginning, the new city soon prospered and, during the Hellenistic period, attracted the interest of both the Seleucids and the Attalids, to whom it reacted with vacillating loyalty. The increasing power of Rome further served to increase Smyrna's prosperity and prestige as it emerged as one of the major cities of the Roman province of Asia, well placed on routes of trade and communication and functioning as a Roman administrative centre. As such it was graced with many fine public buildings, and Strabo claims it to be the most beautiful Roman city of his day. In AD 178, however, disaster struck in the form of a powerful earthquake, which resulted in grave damage to the city and necessitated much rebuilding. The imperial favour and generous benefactions of Marcus Aurelius, nevertheless, made this reconstruction work possible, the extant remains of the state agora still today bearing testimony to the suitably grand scale on which the refurbishments were carried out. By the mid-1st century AD Christianity seems already to have been established at Smyrna. From this point onwards, the city played a significant role in the development of the early Christian Church, a role perhaps recognized in the book of Revelation by the identification of Smyrna as one of the seven Churches of Asia. As elsewhere, the early Christian Church at Smyrna was subjected to much persecution, and in AD 155 Polycarp, bishop of Smyrna, was martyred.

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SOCRATES 470–399 BC

Philosopher

Socrates was born in Athens, the son of a stonemason and a midwife; he was executed by the Athenian democracy in 399 BC. He did not leave any written work; and yet Karl Marx

rightly called him the embodiment of philosophy (*Rheinische Zeitung*, no. 179, 1842; Karl Marx–Friedrich Engels, *Werke*, vol. 1, Berlin, 1956, p. 91). For Socrates lived his entire life for philosophy. He learned his father's craft, but the political service of his polis and the education of his fellow-citizens were more important for him. Such a way of life was possible, for everyday life was simple and thus not expensive. He strove to be a good citizen and served his native city several times as a brave and persevering soldier, but he refused to act wrongly when ordered to do so by the authorities of the pseudo-democracy. He considered that his first duty was to seek the truth and he tried to show it by the maieutic method of his mother, the midwife. He made enemies by questioning the knowledge and opinions of his fellow-citizens in chance meetings. But he himself confessed that he knew nothing. Wishing to be taught, he became an ideal teacher; rejecting the sexual pederasty that was common in Classical Greece, he developed the pedagogical ethos. He was familiar with the doctrines and writings of the natural philosophers, especially of Anaxagoras, but their answers did not satisfy him. More important for him was the individual and social morality that was directed by the demonic, which was more powerful than the human conscience: it was a divine voice. Socrates was a deeply religious man. He made use of the sophistic dialectics, not for his personal advantage, but in the search for truth. He was not interested in establishing a philosophical system or in laboriously propagating them by writing. Already in his lifetime there were thus very different views about his personality and his doctrines. He was known as an odd man, and became an object of mockery and caricature (for instance in the comedies of Aristophanes), and, as we have seen, he made enemies for various reasons. He was thus subjected to a political trial, charged with impiety and corrupting young men, and was condemned to death by the Athenian radical democracy.

According to the customs of his time Socrates' wife and sons were in the background of his life. This was the cause of many anecdotes about the character of his wife Xanthippe and his relations with her. Indeed, his relationships with his friends and pupils were particularly important for him. Socrates, the man without riches or power, attracted a circle of aristocratic young men which occasionally attracted criticism from some democrats. Members of this circle included the two authors whose writings about Socrates survive: Xenophon and Plato. Xenophon was a competent officer, a successful farmer, and a good chronicler, but he was more a man of action than of theory. What he reports in his *Memorabilia* is very valuable, but it represents only part of Socrates' philosophical speculations. For Plato the figure of Socrates was a pretext to formulate his own opinions, and it is difficult to fix the boundary between Socratic inheritance and Plato's continuation. It should be noted that neither Xenophon nor Plato mention each other.

Socrates did not participate in Athenian politics, but some of his pupils were celebrated as the founders of various philosophical schools, such as Plato of the Academy, Aristippus of the school of Cyrene, Phaedo of the school of Elis, and Antisthenes of the school of the Cynics. The Hellenistic doxographers did not reflect the doctrines of Socrates, but preserved a tradition of anecdotes and apophthegms, of which we find traces in the writings of Diogenes Laertius of the 3rd century AD.

In the Roman period a new and different interest in Socrates awoke. A collection of fictitious letters of Socrates appeared (edited by L. Koehler, Berlin 1928). Plutarch, the popular philosopher, priest at Delphi, and archon at Chaeronea, wrote *On the Divine Socrates* and *On the Condemnation of Socrates* and produced an *Apology for* Socrates. A friend of Plutarch, Favorinus of Arelate (2nd century AD), rhetorician and polymath, wrote a (lost) book *On Socrates and His Erotic Art*, which drew the criticism of the contemporary physician and philosopher Galen of Pergamum. The archaizing orators Dio Chrysostom and Maximus of Tyre treated Socratic problems in their speeches, such as the demonic or the erotic, and influenced their colleagues. The Neoplatonists celebrated the birthdays of Socrates and Plato with sacrifices, solemn dinners, and speeches.

At Rome the life and work of Socrates were read more in Xenophon than in Plato. The most important mediator was Panaetius (*c.*185–109 BC), the director of the Middle Stoa. Cicero called Socrates the father of philosophy and praised him for bringing philosophy down from heaven to everyday life (*Academica Posteriora*, 1. 415). The philosopher Seneca the Younger (1st century AD), when speaking of Socrates, utters only commonplaces. Valerius Maximus (early 1st century AD) in his *Factorum et Dictorum Memorabilia* sometimes mentions Socrates as a praiseworthy example of virtue and wisdom with sound character and self-control.

For the Christian Apologists, and especially for Justin (*c.*AD 100–*c.*165), Socrates was a forerunner of Christ; for Socrates the *logos* (intellect) was necessary, while Christ is in possession of the *Logos* (governing principle of the universe). The Alexandrian theologians held this view, but it was rejected by western Christian writers; for St Augustine all the virtues of the pagans were no more than splendid vices.

JOHANNES IRMSCHER

See also **Dialectic; Philosophy**

Biography

Born at Athens in 470 BC the son of a stonemason and a midwife, Socrates served as a soldier in several battles. He was married to Xanthippe and had two sons. He played little part in public life and devoted himself entirely to philosophical debate. He wrote nothing, but his pupils included the founders of several philosophical schools, including Plato. When ordered to arrest an innocent man he refused to comply. He was charged with impiety and with corrupting young men and condemned to death in 399.

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SOLON *c.*640–*c.*560 BC

Poet, statesman, and philosopher

Solon lived and worked in Athens in the late 7th/early 6th century BC. His poetry survives only in fragments. The biographical tradition is late and not completely reliable, but one may draw a general picture of Solon's life and activity. He was an aristocrat, and became active in Athenian politics probably at an early age.

Solon's entry on to the political stage appears to have occurred in the following way. Athens and its neighbour to the west, Megara, had been fighting for some time over the possession of the island of Salamis, which lies between the two cities in the Saronic gulf. When Solon was a young man, the island was in the possession of Megara and the Athenians had passed a law forbidding discussion of reopening the war for possession. If the sources can be believed, Solon rushed into the marketplace feigning madness and recited a long poem about the recovery of the island (frr. 1–3). The war was resumed and ultimately Athens regained possession. The story reveals something about the way people perceived Solon's character: fiercely Athenian, he was full of bravado, and very clever. He was a good enough poet and speaker to persuade his audience, and he made his appeal directly to the people rather than going through official channels. All these traits seem characteristic of Solon, even though the story is probably apocryphal.

Having acquired a reputation for wisdom, Solon was given the task of reconciling two opposing forces in Athenian politics: the tyrannical rulers, and the people who were on the verge of revolt. To accomplish this task, Solon composed a set of laws which effectively ushered in democratic ideals (frr. 4a–c). Among his reforms were the *seisachtheia*, or shaking off of debts, the introduction of a representative council of 400 Athenian citizens, the abolition of debt slavery, a grant of amnesty for all those who had left Athens on account of excessive debt, and other measures (see *Athenaion Politeia*, 5–12). These laws were apparently meant to replace the stern measures contained in the code of Draco, the earlier and harsher legislator of Athens. After putting the reforms into place, Solon was said to have left Athens for ten years.

Although Solon clearly opened a door to representative government for the people, the reforms were not entirely effective and ultimately Athens slipped back into a modified tyranny which it would not escape until the late 6th century BC. In spite of this, Solon's name became linked with democracy and remains so to this day. The Attic orators of the 4th century BC (Demosthenes and others) commonly invoked Solon as the founder of democracy, and the mid-4th-century BC text referred to as the *Constitution of the Athenians* (*Athenaion Politeia*) attributes virtually all democratic reform to either Solon or Cleisthenes. Solon was a reform-minded conservative who tried to address the concerns of the people while at the same time maintaining a firm power base for the aristocracy.

So little of Solon's poetry has survived (about 300 lines out of a total output of well over 5000) that it is difficult to draw many firm conclusions about it. His poetry treats various themes, including politics (fr. 4), the dangers of excessive wealth (fr. 13), the notion that there are seven ages to a man's life (fr. 27), and even food (frr. 38–40). He is the first Athenian poet, indeed the first firmly established figure in Athenian history, although he did not write in the Athenian dialect. This poet of Archaic Athens wrote on a variety of topics central to the life of the individual and the polis. In doing so, he foreshadowed the flowering of the Classical period.

Many of the themes which Solon addressed became standard in later literature, particularly in Athenian tragedy. Specifically, fr. 13 contains, among other themes, the notions that one must guard against excess and that one must take care not to offend the gods by obtaining wealth unjustly lest they exact vengeance. This paradigm, excessive wealth (*koros*), leading to an act of overweening pride (*hybris*), which brings on justice (*dike*) and ultimately divine retribution (*ate*), is at the core of much Greek tragedy of the 5th century BC. Solon clearly saw Zeus as the driving force of the paradigm. He is not only the principal deity, but a guide to correct action. One can easily imagine that the early 5th-century BC tragedian Aeschylus had read Solon's poetry. In another poem (fr. 5) Solon spoke of the need to find the middle way, much as Aeschylus did in the final play of the Oresteia, *Eumenides*.

The wisdom for which Solon's poetry and political acumen made him famous is epitomized in his meeting with the Lydian king Croesus (Herodotus, 1. 29–33). After showing Solon his vast wealth, Croesus asked Solon who he believed was the happiest man. Solon replied that Tellus the Athenian was happiest because he had a good family and had died defending his country. Croesus asked who would be second, and Solon chose Cleobis and Biton. These two Argive heroes had yoked themselves to an oxcart and pulled their mother, a priestess, to a festival of Hera. On entering the temple of Hera, the mother prayed that her sons should receive the greatest gift the gods could give. She emerged to find the two lying on the temple steps, dead. Solon then told Croesus to count no man happy until he has passed the limit of his life, i.e. one cannot judge that a man's life has been happy until he has lived all of it. The story and its attendant proverb, often misinterpreted as though the Greeks thought death a good thing, demonstrate the insight for which Solon was famous.

Although Solon's poetry has received some scholarly attention, discussion of it generally focuses not on its technical innovation but on the thoughts that it contains. Through the

ages Solon has been cited principally as a statesman, a wise legislator, and one of the seven sages. His most important legacy has been the ideals of democracy.

TIMOTHY F. WINTERS

See also **Democracy**

Biography

Born *c.*640 BC, Solon was an Athenian aristocrat who became active in politics. He was renowned for his wisdom and enacted a number of reforms to address the concerns of the people. He also wrote poetry of which little survives. He died *c.*560 BC.

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SONG

The corpus of Hellenic song includes a broad range of repertories for amateurs and professionals that reflect the ubiquity of singing in Greek society from antiquity to the present day. This diversity reflects not only processes of stylistic development, but also the varied ways in which vocal music has served to punctuate nearly every aspect of public and private life. The study of repertories antedating the 19th century, however, is limited by the historical tendency of Greek singers to rely heavily on oral methods of transmission. Despite the existence of ancient Greek musical notation, for example, we possess only an unrepresentative handful of melodies from antiquity. One consequence of these losses is that songs originally viewed as a union of verse, melody, and, in the case of choral lyric, dance are today primarily viewed from a literary perspective. Yet even if the pitches for ancient songs are lost, their rhythm may be partially recovered from the study of their quantitative metres, elements of which have been shown to survive in modern Greek folk music.

The written history of Greek song begins with the *Iliad* and the *Odyssey*, two relics of oral traditions of sung epic which mention the performance of such forms of vocal music as paeans, laments, and wedding songs. While certain repertories continued to be transmitted entirely through oral means, the texts of others gradually became subject to literary transmission. The inclusion of singing competitions in the festivals sponsored by Greek cities – e.g. the funeral games held in Chalcis around 700, at which Hesiod won a prize for song – was evidently a major stimulant to the development of cultivated forms of song, as was cultural interchange between the Aegean and the mainland. An important link between the latter was Terpander (700–650 BC), who left his native Lesbos to embark on a career as a prize-winning poet and *kithara* (lyre) player that has earned him general recognition as the father of lyric poetry. Such cultural interchange, however, did not prevent the emergence of distinct regional schools of composition during the 7th century BC. Lesbos gave birth to the Aeolian lyric of Sappho and Alcaeus, both of whom wrote solo songs of modest scale intended for private or semi-private performance. On the mainland the remarkable mix of religious and state ceremonial with competition and mass entertainment featured at such festivals as the Carneia in Sparta and the Pythian games in Delphi promoted the growth of increasingly complex forms of solo and choral lyric, most of which were accompanied on either the *kithara* or the *aulos*. Particularly significant was the emergence in Corinth around the year 600 BC of the dithyramb, a choral dance to Dionysus with *aulos* accompaniment that later played a seminal role in the development of tragedy.

Over the course of the 6th century BC poet-musicians received increasing levels of state support, particularly from dictators seeking to heighten the prestige of their city states. Athens, for example, witnessed the enlargement of the Panathenaia and Dionysia festivals, followed later by the Pisistratids' sponsorship of such composers as Lasus, Simonides, and Alcaeus. The succeeding generations of 5th-century BC Athenians, which included Pindar and the great tragedians, brought song to its apogee as an integrated art form encompassing verse, music, and dance. Soon, however, the old categories regulating the form and content of compositions began to break down under the strain of constant innovation and ever-increasing technical virtuosity. Consequently, music and poetry drifted apart not only from the civic and religious contexts that had raised them to prominence, but also from each other, relegating the poets and musicians of later antiquity to separate professional fields.

Harsh criticism of the allegedly decadent state of song began during the 5th century BC with Plato and continued throughout the Hellenistic and Roman periods. This critique was eventually adopted by the Fathers of the Christian Church, who broadened

it to include funeral laments and licentious wedding songs. In place of the music of pagan society, St Basil, St John Chrysostom, and other Church Fathers offered psalms, the singing of which was initially popularized by Egyptian desert monks. The rapid development in cathedrals and urban monastic communities of melodically interesting psalmody and hymnography laid the foundations for Byzantine chant and other regional traditions of Christian liturgical song.

ALEXANDER LINGAS

See also **Dance; Dithyramb; Poetry (Lyric); Tragedy**

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SOPHISTS

"Sophist" is a general name given to a variety of (mainly rhetorical) intellectuals and virtuosos who appeared in Athens in the mid- to late-5th century BC. It was a term of opprobrium that, while recognizing that these men were all competent at what they did, carried with it many of the connotations of the American phrase "wise guy" when used by such contemporaries as Aristophanes and Plato. Most Sophists that are known about were not Athenians, but flocked there because there was a market for what they had to teach, public speaking skills that would be effective in political life and in litigation. As there is very little extant that might enlighten modern scholars, there have been many efforts to reconstruct their teachings, particularly since G.W.F Hegel's *Lectures*. Fragments of and *testimonia* relating to the Sophists were included in Hermann Diels's *Die Fragmente der Vorsokratiker* (1896, with many subsequent editions), which remains the standard reference in spite of long-recognized problems with the texts he published.

Among the most famous are Protagoras of Abdera (*c.*490–420 BC?), Gorgias of Leontini (483–*c.*400 BC), Prodicus of Cos (*c.*470–399 BC), and Hippias of Elis (b. 433 BC?). Protagoras and Gorgias were both active in official capacities, the former as the author of the laws governing the Athenian colony at Thurii (in 443 BC) and the latter as ambassador to Athens in 427 BC. Gorgias is perhaps the best known, since some works attributed to him have survived in their entirety, e.g. the famous *Encomium to Helen*. Only a few lines of alleged quotations of Protagoras are extant. Prodicus and Hippias were polymaths, with interests extending from natural science and mathematics to rhetoric and semantics. Others often named as "Sophists" include Thrasymachus, Antiphon of Rhamnos, and the Athenian aristocrat Critias, a prominent leader of the antidemocratic faction active in Athens in the last decade of the 5th century.

In later antiquity, particularly in the setting of the New Academy, the Sophists were admired, along with Isocrates, for their eloquence and their efforts to systematize the teaching of rhetoric. Since then, the Sophists have been consistently placed on the margins of the philosophical establishment. Their apparent challenges to traditional values and their divergences from intellectual orthodoxy attracted the notice of later philosophers similarly situated; and so their champions tend to be the dissenters: Denis Diderot and Friedrich Nietzsche, for instance. In recent years there has been a resurgence of interest in their ideas, one doomed, perhaps, by the sparse record left to us and by the variety of ideas the Sophists expounded.

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See also **Rhetoric; Second Sophistic**

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SOPHOCLES *c.*496–406 BC

Tragedian

Sophocles was born at Colonus near Athens in about 496 BC and died in 406 BC. Living through the glorious Persian Wars, and the increasingly inglorious Peloponnesian War, he was spared the sight of Athens' final defeat at the hands of Sparta, when it had to dismantle its walls in 404 BC.

He was a model citizen. He acted as a treasurer in the league Athens organized against Persia. He studied dance and was said to have danced round the trophy after the battle of Salamis. He also served as a general dealing with the Samian revolt in 441. After the Sicilian defeat he was one of the *probouloi* (Committee of Ten) elected to deal with the disaster.

Like Aeschylus, Sophocles acted in his own plays. In extreme old age he is said to have been sued by a son, who claimed he was no longer capable of managing his own affairs. He read lines from the recently written *Oedipus at Colonus*, and was acquitted. After his death Sophocles became a sacred hero like Oedipus, and was worshipped as *Dexion*, roughly translatable as "he who receives", because of his association with the cult of Asclepius, which he had helped to introduce into Athens after the plague (430–426 BC).

In Aeschylus, god can confront god and major questions are raised about conflicting rights. Sophocles shows man confronting god and a world he claims can never be knowable. As one fragment says (871 Radt), the fate given to us by god is as changeable as the moon; "it never can maintain one shape for two nights, ... just when it is at its fullest and most beautiful, it flows away and ebbs to nothing." All that can be known is something transient, like the moon in one of its phases. In spite of this, man struggles nobly. Truth, loyalty, and commitment to one's chosen path, all characterize the Sophoclean hero and condemn him or her to isolation. But often in his isolation he redeems society. For the Sophoclean hero, the love of the impossible proves to be a redemptive love.

Sophocles is said never to have taken third place when he competed. He wrote about 123 plays, more than the other two playwrights, and is said to have won 24 times (18 at the City Dionysia). Aristotle tells us he added one actor to the two that existed; this created additional possibilities for interchange and conflict. Aristotle tells us he increased the chorus from 12 to 15. He also used scene painting to enhance the visual background. He abandoned the practice of the connected trilogy, allowing him to highlight a major character, in contrast to Aeschylus' practice which allowed the development of a concept such as the workings of divine justice over several generations.

Of the plays that survive, only the *Philoctetes* and the *Oedipus at Colonus* can be dated with certainty, and the *Antigone* approximately, with reference to the Samian war. The following chronology is tentatively suggested: *Antigone* 443 or 441 BC; *Ajax c.*442 BC; *Trachiniae c.*432 BC; *Oedipus Tyrannus c.*427 BC; *Electra c.*413 BC; *Philoctetes* 409 BC; *Oedipus at Colonus* 401 BC (posthumous). There are many fragments, including a large part of the satyr play, the *Ichneutae.*

Antigone, *Oedipus Tyrannus*, and *Oedipus at Colonus* are often called "the Theban Cycle", but do not make up a trilogy, performed on one day. Instead they span Sophocles' life, and seem to reflect his own developing values. The *Antigone* shows a type of idealism which implies a belief in higher values to the point of sacrificing one's life to achieve them; Antigone opposes civic authority. G.W.F. Hegel said the *Antigone* was "one of the most sublime and in every respect the most consummate work of art human effort ever produced". The *Oedipus Tyrannus* seems to justify the struggle itself, as a type of self-affirmation, rather than the pursuit of an ideal. The last play shows sparks of the earlier struggle, but there is a final capitulation to death, prized as an end to suffering (*Oedipus at Colonus*, 1777–79).

Aristotle sees Sophocles as the greatest of the ancient playwrights and uses his *Oedipus Tyrannus* as a model of the way a play should be written. Sophocles is a master of character, and of the language which creates character. He steers a path between the grandeur of Aeschylus and the witty colloquialisms of Euripides. He is also skilled at plots, and his *Oedipus Tyrannus* has been called the greatest detective story ever written. His lyrics are superb, and his characters often sing at dramatically important moments. He varies his rhythms and uses words percussively. Sophocles is also master of symbols and imagery, such as the use of blindness in *Oedipus Tyrannus*: when Oedipus can see he is blind, and when he is blind he can see. The bare island of Lemnos is also a wonderful symbol for the craggy hero Philoctetes. Sophocles has brilliant descriptions of nature, such as the ode to fair Colonus, a land of fine horses where the nightingale sings her melodious songs in the wine-dark ivy and sacred foliage (*Oedipus at Colonus*, 668–719).

The City Dionysia in 386 BC instituted a revival of the great plays of the 5th century. Around 330 BC the Athenian politician Lycurgus prescribed that copies of the texts of the plays should be deposited in the official archives, and that future performances should conform to these texts. The purpose was to safeguard the plays from adaptation and interpolation by actors and producers, of a kind to which they had already become vulnerable. These copies were lent to the Egyptian king Ptolemy I Euergetes, and will have passed into the library at Alexandria, to form the basis of the critical edition made by the librarian Aristophanes of Byzantium (*c.*257–180 BC). Aristophanes divided the lyrics (previously written as continuous prose) into metrical cola. He also added brief introductory comments, probably making use of Aristotle's lost *Didaskaliai* (production records). Part of these comments survive in the *hypothesis* (plot summaries) which were prefixed to the plays by later scholars in the Roman period. The composition of commentaries (*scholia*) on the plays was began in the Hellenistic period (by scholars such as Aristarchus of Samothrace, ?217–145 BC, and Didymus, ?80–10 BC). Further scholia were added in the Byzantine period.

The Theban plays were also popular in Rome: Accius (170–?86 BC) wrote a *Thebais* and *Antigona* (besides *Philocteta*) and Seneca (?AD 1–65) a particularly bloody *Oedipus Tyrannus.* The selection of the seven plays that survive was probably made in the 2nd or 3rd century AD and scholia were included for school use. After parchment replaced papyrus (around the 4th century AD), the unselected plays gradually passed out of use. After the Athenian Academy was closed in 529, the Classical texts disappeared from sight for several centuries and did not re-emerge until the revival of learning in the middle Byzantine period, when they were copied from the uncial into the new cursive script. Among the scholars who wrote commentaries and handled the texts of the plays the most important are Thomas Magister (late 13th century), Manuel Moschopulus (*fl.*1300), and Demetrios Triklinios (early 14th century). Triklinios brought a new metrical awareness to the amendment of the text, in particular the lyrics. Sophocles' *Oedipus Tyrannus* was one of the Byzantine triad along with *Electra* and *Ajax.* The oldest manuscript of Sophocles' plays is L (in the Laurentian library in Florence), written in the 10th century, and there are many others from the 12th to the 15th centuries. The first printed edition was published by Aldus Manutius in Venice in 1502.

MARIANNE MCDONALD

See also **Tragedy**

Biography

Born at Colonus near Athens *c.*496 BC, Sophocles played his part in public life. He was a treasurer of the Delian League, a *strategos* (general) at the time of the Samian revolt, and a *proboulos* (member of the Committee of Ten) after the failure of the Sicilian expedition. He wrote more than 120 plays and won at least 20 victories, the first in 468 BC. He died in 406 BC. After his death he was revered as a hero.

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SPAIN

Spain occupies the major part of the Iberian peninsula. Iberia is the ancient name of the country and Iberians the name of the people who inhabited the peninsula in ancient times and who became urbanized from the 5th century BC. The first Phoenician settlement in Iberia, Gades (modern Cadiz, northwest of Gibraltar), is traditionally dated to *c.*1100 BC. However, archaeological finds demonstrate that this flourishing Phoenician trading settlement was not established until the 8th century BC. It minted coins down to the 1st century BC and initially traded for metals with Tartessus, a cultural agglomeration in southern Spain. Tartessus developed out of local roots, and from *c.*750 BC was exploiting the rich metal resources in the hinterland of Onoba (Huelva). These were traded with Phoenician settlements on the coast in exchange for metal-work, jewellery, ivory, and ceramics, all of which were in turn traded within Iberia. As a result of its close links with Phoenicians and Greeks in Iberia, Tartessus developed a unique orientalizing culture (expressed in sculpture, jewellery, and architecture, for example). Tartessus collapsed in *c.*550 BC for reasons that are still a matter of academic dispute.

Greek presence in the Atlantic regions of Iberia is traceable from the second half of the 7th century BC, especially in the Huelva region, where it is linked to Tartessian culture; it may also be identified in the same period in the northeastern regions of Iberia. From the last third of the 6th century BC, Greek presence in Huelva diminished and remained at a low ebb for the next 100 years. The Greek colonies in Spain were established by the Phocaeans. Of the three known colonies – Emporion, Rhode, and Maenace – the first, which was indeed the major Hellenic centre in Spain, has received the most detailed archaeological study.

Emporion, northwest of modern Barcelona, was founded *c.*600 BC at about the same time as Massalia (modern Marseilles). Initially a small settlement was established on an island, and in *c.*575 BC it moved to the shore of the mainland, an area populated by local people and set amid marshes. It is clear from finds of local pottery in the Palaiapolis and study of the city's necropolis that the population of Emporion included local people from its very beginnings. Emporion was also surrounded by the settlements of the local population; peaceful relations between colonists and natives were very important for ensuring the survival of the Greeks in the region. Iberian society was highly organized but not centralized. The Ullastret settlement, about 20 km from Emporion, housed the Iberian elite of the hinterland. Situated atop a hill, it controlled the whole of the territory surrounding Emporion. In consequence, the relationship between Emporion and Ullastret was not merely mercantile but political as well. It may be remarked that the city walls of Ullastret were constructed only about 500 BC, long after the final establishment of Emporion. In almost every house in Ullastret large quantities of Greek pottery were found. Greek influence is clearly discernible in the planning of the settlement, in features such as an acropolis with its own inner walls and small temples, and a porticoed marketplace.

Tivisa is another native Iberian settlement. It overlooks the Ebro river, controlling access to the Iberian interior. It has very strong fortifications and a gateway closely modelled on Greek plans of the 4th century BC. Here more Greek pottery was found. These two settlements are evidence of the close and peaceful relationship which the Greeks enjoyed with the Iberian elite who, from well-fortified settlements, controlled the hinterland so vital for Greek trading activity. The Emporitans could expect little benefit from the marshy territory immediately around them. In the southeast of the Iberian peninsula the most important illustrations of Graeco-Iberian relations are the local settlements of Porcuna and Castulo, as well as Huelva.

Although strongly indigenous, Tartessian/Iberian culture was more Phoenicianized than Hellenized. Further Greek influence can be traced from the 4th century BC when, with the fall of the Punic world to Rome, Iberian–Phoenician links became sparse. Ionian influence on Iberian stone sculpture is obvious. Most probably, local, very Hellenized sculpture workshops existed in Castulo and Obulco. In them it is possible that Greek and local craftsmen worked alongside each other, the former adapting their artistic skills to the tastes of the local elite, and the latter working under Greek instruction. Tomb monuments show Anatolian influence (which came via the Ionians); important in this respect are funeral stelae which carry depictions of Ionic columns. Iberian small bronze figures as well as silver gilt *phialai* (libation bowls) from Tivisa and Santiesteban show Greek influence.

Graeco-Iberian script is another aspect of the Hellenization of the Iberian elite and society at large. It uses the Ionian alphabet. The earliest inscription dates from the second quarter of the 5th century BC. The script was widespread in the Hellenistic period, especially after the 2nd century BC. It is found not only at local sites but also in Emporion, on both Greek and local pottery.

Spain first experienced a Roman presence at the very end of the 3rd century BC. In 197 BC Rome divided its possessions in Iberia (or Hispania, as it was known to the Romans) into two provinces: Hispania Citerior, the eastern coastal strip; and Hispania Ulterior, the southeast coast and the Guadalquivir valley. The conquest of the peninsula was completed by Augustus in the Cantabrian Wars (26–19 BC). Twenty-two colonies were founded under Caesar and Augustus. In the 1st century AD many provincial Roman senators came from the colony of Hispania; and several emperors – Trajan, Hadrian, and Marcus Aurelius – could boast Spanish ancestry. The barbarian invasion of 409 resulted in the rapid loss of Roman control of all the Spanish provinces. By 475 Spain was finally lost to Rome.

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See also **Colonization**

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SPARTA

City in the Peloponnese

Sparta was the controlling city of Laconia, the southeastern part of the Peloponnese, situated in an extremely fertile area well watered by the river Eurotas. There was a Mycenaean settlement in the vicinity, on the hills above the opposite bank of the river, quite substantial, but hardly comparable with the great palaces of Mycenae, Tiryns, or Pylos. It may or may not have been the residence of the Mycenaean king who is personified in Homer's *Iliad* and *Odyssey* as Menelaus, the husband of Helen and brother of Agamemnon himself.

Classical Sparta was founded by Dorian settlers who moved in during the confused period after the collapse of the Late Bronze Age political systems. They avoided the previous settlement, which was later marked by a sanctuary dedicated to Menelaus and Helen (the Menelaion) and instead occupied a series of sites on the west bank, where they founded four villages. These merged, by some totally unknown process, into a single political entity which, along with a fifth village at

Amyclae a short distance to the south, became the city, though for a long time – certainly until the 5th century BC when Thucydides wrote – it remained in physical terms a cluster of villages. According to Thucydides, it is clear that in his time it was distinctly a non-monumental place, in contrast to his own and other cities of his day.

The Dorian settlers brought with them a primitive constitution, paralleled by those of other settlements, particularly in Crete, which were founded or refounded at the same time as a result of the Dorian migration. It aimed to confirm the military effectiveness of the political body. In adolescence, young men were taken from their families and lived in communal groups, where they underwent a rigorous regime of physical and military, rather than intellectual or academic, training. The effectiveness of this was enhanced by the development of the heavy infantry armour and fighting method of the hoplite type of warrior. By the 6th century BC the Spartan army was generally recognized as the most efficient fighting force in Greece, a reputation which was confirmed by the part it played in defeating the Persian invasion. The total normal strength of the army was 5000, all full citizens of the city. Citizenship was restricted to those who underwent the training regime and served in the army, in effect the adult male population of the five constituent villages. Its function was not so much to ward off external enemies (not merely the Persians, but other Greek city states, particularly Argos) as to maintain a supremacy over Laconia and, by conquest, the district to the west, Messenia. This involved another distinctive element in the Spartan system, the allocation of landed estates away from the city itself to its citizens, who were entitled to the products of their estates, but which were farmed for them by subservient workers, the helots (''captives''), who were tied to the land. This freed the Spartan citizens from the necessity to work for their living, and allowed them instead to dedicate themselves to military training. Part of the food produced by their estates had to be given to the military group to which they belonged, and where they normally ate, rather than at home.

The reason for this system is unclear. In the training and communal meals there is a primitive, tribal element; but when it first emerges, it is devoted to a supremacy which enabled the Spartans to trade agricultural produce for luxury items imported especially from the east, a phenomenon to be found in other contemporary Greek cites, Corinth most clearly. Items such as pottery, metalware, and so forth were also produced in Laconia itself: examples have been found in the Archaic levels at the sanctuary of Artemis Orthia on the banks of the Eurotas, and at the Menelaion, along with ivories and other imports. There must therefore have existed an artisan class, though who they were and where they lived is uncertain. They are usually attributed to a third political category, the ''dwellers round'' or *perioikoi*, communities which enjoyed local independence (i.e. they were not tied helots), but were under political obligations, particularly of rendering military assistance, to the Spartans. Their numbers, when called upon, seem to have doubled the size of the Spartan army. However, the Spartan army was needed more and more, particularly after rebellion by the Messenian helots, to police and maintain the Spartan constitutional supremacy. It became self-devouring: military supremacy was needed to maintain the training and living systems, which were themselves needed to maintain military supremacy. Thus it had become an end in itself. This led to a tightening of the regime, and in particular a rejection of luxury and personal wealth. Strengthening the system meant its maintenance, and innovations were frowned on: Sparta notoriously did not issue its own coins, since coinage had been invented to facilitate commercial development.

As a result, Sparta emerges as the natural antithesis of Athens: restricted constitution in contrast to democracy, military prowess as opposed to naval development, self-sufficient instead of relying on trade and imperial exploitation. It even kept its curious institution of a dual kingship, at a time when most Greek states no longer had kings. It is a contrast which, in its political application, led to war.

Sparta failed because it was not equipped to deal with the problems which faced the wider Greek world, particularly the need to maintain a constant defence against the possibility of a Persian resurgence. The consequences of this can be seen in the strains imposed on Sparta when it tried to sustain this role in the first half of the 4th century BC. The loss of Messenia, liberated by the new-style Boeotian army, crippled it permanently. This and other strains led to a steady decline in numbers of the citizen population able to draw from their estates to contribute to their military groups: the problem may have been exacerbated by a primitive system for deciding inheritances. The number of subordinate helots (except for those lost with Messenia) and *perioikoi* does not seem to have declined, and a new group, the ''inferiors'', grew up in Sparta itself, former citizen families who had lost the necessary property qualifications.

At first, this diminished Sparta stands outside the new order created by Philip II and the Macedonians, largely ignored because it was unimportant, though generally managing to remain independent. Land passed into the hands of an extreme few, usually through female inheritance, and Sparta was regarded as a mere has-been. All this ended with social reform introduced by King Cleomenes III. In this he confiscated all the land and redistributed it into new estates, on the pretext that he was restoring the original Spartan system. The new land-holders were, at the same time, liable to military service, and so a new and briefly powerful Spartan army was created. It failed, at the Battle of Sellasia in 222 BC against the superior Macedonian army of Antigonus Doson, and Sparta relapsed into insignificance.

However, it was an insignificance with a distinguished past. As part of the Roman empire Sparta flourished, in the form of a small but prosperous provincial city. It traded on its traditions. The training regime was partly revived, though the harshness, which included whipping the youths, became something of a spectacle, and a theatrical structure was built at the sanctuary of Artemis Orthia so that an audience could observe. The town itself included wealthy families, some of them newly arrived, and houses with lavish mosaic floors have been excavated. A substantial theatre was built in the 1st century BC and subsequently enlarged. In the troubled times of the late empire, and for the first time, fortifications were constructed, delimiting a much-reduced area, and these maintained the place into the Middle Ages until the population was transferred to the stronghold of Mistra, away from the river in the foothills of Mount Taygetus.

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SPELLS

The vocabulary of casting spells comprehends the terms *epoide*, literally a "singing over", and *pharmakon*, a broad designation that straddles the notions of incantation and drug (medicine or poison, possibly enchanted) and which could be extended to describe any psychagogic force: Plato in particular assimilated the power of the spellbinding word to the power of poetry or rhetoric, both of which deprive their objects of the capacity for autonomous action (*Charmides*, 157a; *Republic*, 607d; *Meno*, 80a; cf. Gorgias, *Encomium of Helen*).

Spells were ubiquitous in ancient Hellenic society. More than 1500 incised tablets associated with spellbinding survive from antiquity as do many incised ostraka and amulets, while the *Papyri Graecae Magicae* (*PGM*) of Hellenistic Egypt, dating from the 3rd and 4th centuries AD but informed by long-established practice, constitute a veritable magician's handbook. Individuals seeking supernatural aid could buy spells from professionals; Aristophanes claims that the witches of Thessaly (an area famous for witchcraft) charged a fee (*Clouds*, 749–52) and Plato suggests that such specialist services came cheap (*Republic*, 364c).

Incantations were accompanied by various practices that served to reinforce the power of the spoken word. One important supplement to the oral spell from the Classical period onward was the process of inscription – the performance of writing down the name of the victim and that of the god or demon invoked to work the spell lent greater efficacy to the accompanying words. Inscriptions could be empowered further by the addition of the inscribed images of humans, animals, and demons and of arcane astrological symbols and mystical numbers; often the words themselves were written backwards, mixed up, or repeated. The language of spells was highly formulaic and sometimes specifically magical; "nonsense" words comprehensible only to demons could be used, such as "abracadabra", attested for the 1st century AD, and the Ephesian *grammata* ("letters"), recited or inscribed in apotropaic rituals.

Herbs and plants, often pharmacologically active, were used in spells, as were minerals and the body parts of animals – the *PGM* record many charming recipes; and personal effects of the victim such as hair, nails, or clothing were employed synechdochically. Magic tools were used, for example the *iunx* (a bronze whirling disc), bull-roarer, and gong, while in the *Odyssey* Hermes, Circe, and Athena have magic wands (13. 429, 16. 172, 456). Voodoo dolls of wax, mud, or dough representing the victim of the spell and often inscribed with his or her name were a common feature of spellbinding. These figurines could be placed in graves, burnt, melted, or transfixed with nails (*PGM*, 1. 83–87 suggests the insertion of 13 needles) and sometimes had their hands tied behind their backs. Indeed the vocabulary of bondage, such as *katadein* (tie down) and *katechein* (restrain), is prevalent in spells – more than 1000 examples of ancient binding spells (*katadesmoi*) have been found, and as late as the 12th century AD Eustathios was familiar with the idea. The concept of binding the victim is important, a notion perhaps related to the bonds of fate and a demonstration of the appeal of sympathetic magic – the victim is bound to the speller's will and rendered powerless. The frequency of curses resulted in their corollary – antidotes: *PGM* 4. 2177 offers a spell to break the power of a curse tablet; many inscriptions suggest remedies to ward off the anger of one's enemies (for example *PGM*, 7. 940–68, 4. 831–32); others have a more general apotropaic function. Of course the notion of magic could be used as a method of saving face: failure in anything from litigation to love could be ascribed to a malignant spell.

Often spells are agonistic in context. Many Athenian *katadesmoi* relate to lawsuits and represent an attempt to silence opponents in court: an inscription on a lead tablet from the 5th century BC calls down a curse upon Aspasia and her legal helpers (*Inscriptiones Graecae*, 3. 3106), while the "binding song" (*hymnos desmios*) of Aeschylus' Erinyes occurs in a legal context (*Eumenides*, 306ff.). Other spells relate to success in athletics, the theatre, and business, while many promise to endow the speller with a more general appeal and success (e.g. *PGM*, 12. 397–400). Another important locus of enchantment was love, and *agogai* – rituals designed to lead the beloved to the speller's bed – form a large part of the literature on spelling. Theocritus' *Pharmaceutria* (3rd century BC), a portrait of an abandoned woman attempting to bewitch a former lover, echoes the sympathetic erotic magic of contemporary practice – the melting of a wax dummy, the burning of a thread from the victim's cloak, the use of magical tools, and an incantatory refrain.

In Greek literature it is women in particular who cast spells and are skilled in the use of *pharmaka*, while bewitchment is often troped in terms of the characteristically female activity of weaving – Medea, ancient literature's most infamous witch, weaves spells and invokes demons (Apollonius Rhodius, *Argonautica*, 4. 1635–90). Yet the spells in the *PGM* are addressed more often to male practitioners, and their use crossed the boundaries of gender and status.

Spells were not used only to harm: some of the earliest references to incantation in Greek literature occur in a medical context. In the *Odyssey* Autolycus and his sons bind Odysseus' wound and sing incantations over the dark blood (19. 457) and Pindar's Cheiron heals with incantations, *pharmaka*, and surgery (*Pythian*, 3. 43–54). Indeed the distinction between magic and medicine in antiquity is blurred: amulets (*periapta, periammata*) applied with incantations were worn as remedies for or prophylactics against disease (e.g. as a cure for headache, Plato, *Charmides*, 155e–156e); healing with spells is mentioned (and disparaged) in a text belonging to the Hippocratic corpus (*On the Sacred Disease*, 1–2); Plato says midwives use *pharmaka* and *epoidai* to induce labour (*Theaetetus*, 149c–d). The distinction between magic and religion is arbitrary too: many spells were in prayer form. Plato claims that sorcerers persuade the gods to serve them by prayers (*euchai*) and *epoidai* (*Laws*, 909b; cf.

Republic, 364c) and Sappho's prayer to Aphrodite has the tone of an erotic magical spell (fr. 1 L-P). Indeed the whole pantheon of Greek gods was invoked in incantations in which supernatural powers were compelled to serve the speller, although Hecate, Persephone, Selene, and Hermes figure most prominently.

In ancient Greece religion and "magic" were not mutually exclusive categories and no legislation of pagan antiquity relates directly to spells (although Plato suggested that "black magic" should be criminalized, *Laws*, 933a).

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See also **Magic**

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SPORADES

Islands in the northwest Aegean

The Sporades comprise a cluster of four islands and a number of rock islets in the western Aegean Sea, extending in longitude from Thessaly to Euboea. The three main islands – Skiathos, Skopelos, and Alonnisos – lie southeast of the Magnesia peninsula, while Skyros is situated further south, northeast of the midpoint of the island of Euboea. Their geographical location has determined their administrative position, making Skyros part of Euboea while the other three belong to Magnesia.

Although the islands have a common history, each is known for its own character. Skiathos has a cosmopolitan ambiance; Skyros is well known for its rich local folklore; Skopelos is famous for its outstanding churches; and Alonnisos for its scenery.

Skiathos is the closest of the four to the mainland, situated opposite Mount Pelion about 43 nautical miles from the port town of Volos. It covers a surface of 48 sq km and is populated by little more than 4000 people. Endowed with a large number of lovely beaches and a pine-filled landscape, it has long been one of the most attractive tourist destinations of Greece. Of the nine small islands surrounding its coastal waters, two with the name Tsougries lie across the main harbour, making it a safe haven for small boats and yachts.

The island's strategic location was a principal reason for its being conquered by a long succession of rulers since antiquity. During prehistoric times, it was inhabited by Pelasgoi who came from Thrace in northern Greece around the 12th century BC. It is hypothesized that Cretans of the Minoic age also inhabited the island. This idea is supported by the name of the island, which is very similar to "Skianthios", the Cretan name for the god Dionysus. Thessalians of the Mycenean age may also have been among the early settlers. Ionians and later Chalcidians colonized it by the 6th century BC. In 477 BC Skiathos became a member of the Delian League to gain protection from Persian invasion. Initially city members of the alliance were autonomous and had a democratic administration, but Skiathos came increasingly under the direct rule of Athens, until it passed into the control of Sparta following its victory in the Peloponnesian war in 404 BC. The Antalkidios peace treaty in 386 BC gave the island its official independence, but Sparta violated the agreement and Skiathos was again under their hegemony. In 378 BC the island regained its autonomy by becoming an ally of Athens and taking part in the second Athenian Alliance. During almost 40 years of this alliance, Skiathos enjoyed a remarkable economic prosperity, a sign of which was the privilege of minting its own coins. The Macedonian victory in the battle of Chaeronea in 338 BC signalled the beginning of Macedonian occupation. During the second Macedonian war in 199 BC, Philip V completely destroyed Skiathos and Skopelos so they would not fall into the hands of the enemy Roman fleet, which nevertheless reached Skiathos and completed its devastation. A quick recovery followed and the island obtained a democratic regime in 197 BC. When Greece was subjugated by Rome in 146 BC, Skiathos followed the fate of the rest of the country. In 42 BC, after the battle of Philippi, Mark Antony handed the island over to the Athenians as a token of appreciation for their assistance.

Skopelos (Greek for "steep rock from the sea" because of its rugged coastline) is almost twice as large as Skiathos and has about the same population. It is situated between Skiathos and Alonnisos and, like Skiathos, has frequent connections with Volos and Euboea. Its land is mostly flat with only a few low mountains. Pine trees abound and the local prunes are famous. The verdant landscape, the domestic architecture, and the churches are the chief attractions of this island.

Its present name appeared first in the Hellenistic period. Previously the name Peparithos was used. Legend has it that Peparithos with his brother Staphylos, sons of Ariadne and Dionysus, landed on the island with a group of Cretans in the bay known as Staphylos to this day. Staphylos, who became the first king, was buried there in a grave which was discovered in 1927. The finds – a gold crown, funerary offerings, and weapons – are displayed in the museum of Volos. During historical times Skopelos was inhabited first by Mycenaeans between 1600 and 1100 BC and later by Chalcidians between 700 and 500 BC. As a member of the Delian League it was ruled by Athenians until 340 BC when it came under Macedonian dominance, which continued until 168 BC when Athenians took over once again. The Ghisi family owned the island during the Venetian occupation and built a castle with a magnificent view over the ruins of the ancient citadel. In 1537–38 Skopelos shared the fate of Skiathos, being sacked by Barbarossa and by the Turks under whose occupation it remained until the revolution, during which its fleet played an active part in the struggle for liberation.

Alonnisos to the cast of Skopelos is an oblong island with a hilly landscape covering an area of 64 sq km and is populated by slightly more than 1500 people. It is the least developed of the Sporades and therefore the least visited. The sea surrounding the coastline is designated a marine conservation park to protect the Mediterranean seals which have chosen the coves of smaller islands near Alonnisos as a haven. An earthquake in 1965 damaged the earlier capital, Alonnisos, and most of the inhabitants abandoned it and resettled 5 km to the east near the sea. The present port capital of Patitiri is on the southeastern side, 68 nautical miles from Volos and 35 from Euboea. The same earthquake split the centre of the island into two small islets – Psathoura (the remains of ancient Alonnisos) and Psatharopoula. Both lie submerged.

Signs that Alonnisos was inhabited in prehistoric times were found at Kokkinokastro and on the islet near it. The earliest palaeolithic finds in the Aegean were discovered here: animal bones and stone tools dating from 100,000 to 33,000 BC (Middle Palaeolithic period). The island was known as Ikos in antiquity, and the names Chelidromia and Diadromia were used later. A variation of these, Liodromia, is heard even today. According to mythology Peleus, father of Achilles, spent the last years of his life in Ikos and was buried on the island. Statues, tombstones, potsherds, and wine bottles from Ikos have been preserved at Kokkinokastro. The Athenians maintained a naval base there, stimulating the interest of Philip II of Macedon to bring the island under his rule. In 1538 Barbarossa and the Turks did not spare the island from plunderous attacks.

Alonnisos is surrounded by a host of tiny islands, the largest of which are Peristera and Lehoussa on its eastern side. On the small island of Youra to the northeast the Cyclops' cave with multicoloured stalactites and stalagmites is worth visiting.

Skyros, the largest in the group with an area of 209 sq km and a population of almost 2800, is the closest to Euboea, which is only 24 nautical miles away. Its capital, Skyros (Chorio or Chora), is close to the sea on the northeastern coast, while its port, Linaria, is located on the western side 11 km from the capital. The stark antithesis between the northern and southern parts of the island creates a natural divide connected by a narrow isthmus. Most of the population is concentrated in the northern, verdant part, since the southern, rocky side is virtually inaccessible. The island's vernacular architecture, its rich local folklore, and the diversity of its scenery give Skyros its unique character.

Archaeological finds reveal that the island has been inhabited since the neolithic period (5000 BC). Ancient legend considers its citadel to be the place where Thetis, Achilles' mother, hid her son disguised as a maiden among the daughters of king Lycomedes so that he could avoid the draft in the Greek campaign against Troy. Another legend claims this as the place where Theseus, king of Athens, met his death. Between 469 and 340 BC Athenians colonized the island and during Cimon's rule they divided the land in lots. Macedonians succeeded in taking over the island and kept it until 196 BC; the Athenians took it back and later passed it over to the Romans.

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STOICISM

Stoicism was a philosophical movement that took its name from the Stoa Poikile, or Painted Porch, in the Agora at Athens, the central public place where philosophers used to meet, to lecture, and to engage in discussions. The school was founded by Zeno of Citium (335–263 BC), who came to Athens around 313 BC and studied under the Academic Polemo and the Cynic Crates. He was succeeded as the head of the school by Cleanthes of Assos (331–232 BC), who in turn was succeeded by Chrysippus of Soli (*c.*280–207 BC), perhaps the greatest Stoic philosopher, Diogenes of Babylon (*c.*240–152 BC), and Antipater of Tarsus (2nd century BC). Zeno divided philosophy into three parts: logic, physics, and ethics. His followers took up and developed his doctrines in different directions. Zeno's student Aristo of Chios stressed ethics to the exclusion of physics and logic, whereas Herillus emphasized knowledge at the expense of moral action. Cleanthes, on the other hand, advocated a religious view of the world, and his contributions to Stoicism lay especially in the areas of theology and cosmology. It was Chrysippus more than anyone else who advanced and systematized the doctrines of the school; thus his works came to be regarded as offering the standard formulation of Stoicism. The so-called Middle Stoa attempted to make Stoic doctrine more accessible to a wider audience, and was more hospitable to ideas from other philosophical schools, particularly Plato's and Aristotle's. Panaetius from Rhodes (*c.*185–109 BC) changed the emphasis of the school's teaching to make it more directly relevant to the practical concerns of everyday life. Panaetius' pupil Posidonius of Apamea (*c.*135–50 BC) also modified the traditional doctrine of the school in some areas, but his main interest seems to have

been the sciences, including geography and ethnography. Of the writings of the Stoics down to Posidonius almost nothing remains except for a hymn by Cleanthes and a few papyrus fragments. We have, though, numerous reports in later writers, some of them clearly hostile to Stoic philosophy, and many simply failing to grasp fully the Stoic doctrines. Thus reconstructing the philosophical ideas of the earlier Stoics proves to be a difficult, if not at times impossible, scholarly task.

Stoic philosophy was a major influence on political and moral thought in the Roman empire in the last century BC and the first two centuries AD. The treatises and letters of Seneca (*c.*4 BC–AD 65), the lectures of Epictetus (*c.*AD 55–135), and the meditations of the emperor Marcus Aurelius (AD 121–80) laid particular emphasis on the ethical teachings of the school. Seneca and Roman expositors of Stoic philosophy such as Cicero facilitated the transmission of diffuse accounts of Stoic ethics into the writings of the Latin Fathers, such as Lactantius, Ambrose, Augustine, and Martin of Braga, and subsequently into the medieval world. We find a kind of medieval Stoicism, represented by such scholars as Petrarch, and focused mainly on ethics. During Humanism the main sources for ancient Stoicism were all translated into Latin, and in the 15th century scholars such as Justus Lipsius made an attempt to reconstruct and to some extent revive Stoicism, presenting it as compatible with Christian theology. Early modern thinkers of the 16th century such as Jean Pena, Tycho Brahe, Juan Luis Vives, and Guillaume du Vair already show the influence of Stoic ideas. Some of the most important philosophers of the 17th and 18th centuries such as Hobbes, Descartes, and Spinoza incorporated into their philosophy Stoic elements, just as scientists such as Newton also drew on Stoic ideas.

Although it may be true that especially in the later phases of Stoicism ethics became the vital concern, this does not mean that the other parts of philosophy, namely logic and physics, had a subordinate place in Stoic doctrine. On the contrary, the Stoics viewed philosophy as a whole and repeatedly emphasized the close interdependence of the three parts of philosophical discourse. For though the highest aim of the Stoic was to learn how to conduct himself in life, Stoic philosophers never doubted that this was to be based on a firm grasp of the truth and on an adequate understanding of the world. This is the reason why they used to compare parts of philosophy to the parts of an egg or an animal; the shell or the bones are logic, the white or the flesh are ethics, while the yolk or the soul are physics. The tripartite division of Stoic philosophy as well as the different orders that were suggested for the study of the three parts served only as the most appropriate way of expounding or learning the theorems of Stoic philosophy.

Logic, according to the Stoics, was the study of everything to do with rational discourse. It was divided into dialectic and rhetoric; dialectic included logic in the modern sense, but also grammar, semantics, philosophy of language, and epistemology. The Stoics believed that knowledge ultimately is based on sense experience. Human beings start as irrational animals with no mind at birth, and it is only because they receive repeated impressions from the outside world that give rise to concepts that their rationality grows, by the continuous formation of concepts and beliefs. They also claimed that in principle it is possible for human beings to have solid knowledge. For there are certain impressions, the so-called cognitive impressions (*kataleptikai phantasiai*), which by their nature indicate in a clear and distinct way a fact about the world. Hence they can be regarded as criteria of truth, i.e. as instruments for judging whether our opinions are true or false. Needless to say, the ancient sceptics questioned whether there are such criteria on which the whole of our knowledge may securely rest, and the Stoics, who engaged in a continuous controversy with them, tried to refine and develop their theory in order to meet their objections.

The basis of Stoic logic is a theory about significant speech, in which the Stoics distinguish between the sound uttered, that which is said or meant, the *lekton*, and the external referent. Although this Stoic doctrine is often highly praised, because it seems to resemble recent theories of meaning and, in particular, to anticipate the modern distinction between sense and reference, there are significant differences. For instance, in Stoic logic a *lekton* does not correspond to any expression, say a noun, but only to a complete utterance. So some *lekta* may be questions or commands, whereas others are propositions that may be true or false. The Stoic logical system was concerned with the interrelations of non-simple propositions, in particular of propositions of the form of conditionals, exclusive disjunctions, and negated conjunctions. It was mainly Chrysippus who, also under the influence of Diodorus Cronus and Philo of Megara, advanced the logic of propositions to its highest point in antiquity, presumably independently of Aristotle's logic of terms. According to Chrysippus, this logic can be construed as an axiomatic system in which all arguments are reducible to five basic kinds of indemonstrable arguments (*anapodeiktoi*) whose validity does not admit of proof. The form of the first two indemonstrables, for instance, was as follows: (1) if the first, then the second; but the first; therefore the second; and (2) if the first, then the second; but not the second; therefore not the first. These two indemonstrables became known later in antiquity and in the Middle Ages as the *modus ponendo ponens* and the *modus tollendo tollens* respectively.

Stoic physics was based on the presupposition that there is one world (*kosmos*) which constitutes a single living being, and that there are only two principles from which everything is constituted; an active principle, which is named God, *Logos* (Intellect), or Nature, and a passive principle, which is understood as unqualified substance or matter. The Stoics stressed that these principles are always joined and never exist separated from one another. The active principle is present in the whole universe and gives to every part of it its character. It is therefore the ruling principle of the whole world, a ruling principle itself of the form of a rational living being that is both intelligent and intelligible. Materiality, on the other hand, is not equivalent to corporeality, but just one aspect of it, as any body is already formed. The world is a continuous object and it cannot be divided into discrete particles, as in Epicurus' physics. The Stoics confined existence to bodies, and vehemently rejected claims of earlier thinkers concerning incorporeal entities. Even God was identified with a special form of fire, which gives shape and life to the world. Following Heraclitus, the Stoics claimed that the transformations of fire, which correspond to the designing or creative activities of God, bring about the alternating phases of a cosmic cycle. For the Stoics did not maintain that the present world is ungenerated and indestructible; they rather believed that it will end in a total conflagration (*ekpyrosis*), but

will then be reconstituted again as the conflagration subsides. Only God persists through the conflagration as the fire into which everything is absorbed. As the world order again emerges from this fire, God's presence in earthly things is in the form of breath or spirit (*pneuma*), a fiery form of air. Organic and inorganic things alike owe their identity and their properties to it; its two constituents, fire and air, are blended in different proportions in different things. In the case of human beings, it is the human soul that constitutes part of the all-pervasive *pneuma*. Thus within the world order *pneuma* has two related functions: it gives internal coherence to individual bodies, and it also, because it permeates everything, makes the world as a whole a single coherent body.

In this rational world order, which is ruled by God or *Logos*, the interactions of bodies occur according to exceptionless laws; these laws constitute "fate" and are identified by the Stoics with providence. They held the view that for everything that happens there are causes such that, given these causes, nothing else could happen; for the Stoics "chance" is simply a name for undiscovered causes. That is why they claimed that all future events in principle are predictable, and that astrology and divination should be regarded as empirical disciplines. However, in this deterministic world there still is a place for what is just possible and not necessary. Chrysippus understood the possible as that which admits of being true and is not prevented from being the case. He moreover developed a complex theory of causation to explain how human action is free in a sense required if human beings are to be responsible for their actions. According to his view, fate is the set of external causes that act upon the individual and work to bring about their destined effects; but these external causes only trigger things to happen, whereas the primary cause is in the individual itself. Thus the external antecedent cause by itself does not necessitate the action. Now, although for the Stoics all people are responsible for their actions, only the wise man is free; for freedom consists of acting of one's own choice as one is providentially ordained to act for the best of the universe as a whole. Thus Stoicism is not a fatalistic philosophy of inaction, and the wise man will act in whatever way seems appropriate given the understanding he has; to decide to act in the way one is destined to act is in our own power, even if it is settled by fate how we are going to act, given the sort of person we are.

Stoic ethics presents the most demanding account of virtue in antiquity. Virtue alone is the good, while all wrong actions are equally wrong. We acquire the notion of the good as a crucial part of our reason, and this transforms our motivation in such a way as to be attracted by what we judge to be good. Virtue is sufficient for happiness, which is defined as life in accordance with nature; the nature with which one is to live in agreement is both one's own rational constitution as a person, human nature, and the rationality of universal Nature or God. That we are meant to live in agreement with Nature is also expressed by the Stoics in talking about the common law, or a natural law, which demands that we do what is natural and refrain from doing what is against Nature. This gave rise to a theory of natural law that was taken up by the Christian Fathers, notably Augustine, and exerted considerable influence on discussions of human rights throughout modern times. For the Stoics the possible conflict between particular and universal Nature is only apparent; the virtuous man will have no preference of his own in conflict with the good of the world. Passions are the source of unhappiness, for a person in such a state, by assenting to a certain kind of false impression, has himself generated an excessive impulse to pursue or avoid something that in reality is indifferent. Passions as false judgements are thus not a feature of non-rational animals, but characterize only human beings who should be blamed for them. So there is no conflict between reason and desire in an individual soul free of passion, and apparent conflicts are explained as rapid waverings of our judgement.

Happiness does not in the least depend on the possession or absence of things only conventionally regarded as good or bad, such as health, reputation, wealth, beauty, etc.; these things are regarded as "indifferent", since they make no difference to virtue and true happiness. Now among things indifferent some things are in accordance with nature and others contrary to nature; both lack goodness, but the first should be selected on the grounds of their natural preferability, and that is why they are called "preferred indifferents". Furthermore, "proper actions" are all the actions that are natural to a mature human being. "Right actions" are a special kind of proper actions, the perfect proper actions, which are the peculiar province of the unfailingly wise or virtuous man. The difference lies in the motivation. A right action is a proper action done with the motivation only a wise man can have. A wise person realizes that the important thing is not to attain a particular preferred indifferent but to try to do so, because it is good to do it. For the Stoics there is a sharp distinction between the virtuous or wise person and everybody else, who is regarded as foolish. It is very difficult to be wise, and that is why the Stoics never claimed that they had achieved wisdom.

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See also **Philosophy**

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STRABO *c.*64 BC–*c.*AD 19

Geographer, philosopher, and historian

Strabo is the author of two monumental works: a universal history in 47 books, which has not survived, and his famous *Geography* in 17 books, which has. As a young man Strabo studied philosophy and was particularly drawn to Stoicism. He knew, and was apparently influenced by, the famous philosopher Posidonius. Strabo believed, with the Pythagoreans, that the universe was geocentric, and that the earth was a sphere with a single land mass surrounded by water. He travelled to Italy three times, visited Greece and Asia Minor, and lived in Egypt for about six years. This combination of travel and philosophical study resulted in a work of geography which is noteworthy for the exposition of a philosophy of geography and for its wealth of historical and mythological information.

Strabo held that the study of geography belongs to the realm of philosophy. He states in book 1 of his *Geography* that, although it is primarily useful to commanders and statesmen, geography is also invaluable for philosophers who investigate everything on land and sea. The study of geography presupposes "the man who busies himself with the investigation of the art of life, that is of happiness" (1. 1. 1). Given this purpose, Strabo's methodology was to interlace clear and accurate descriptions of geographical features with a broad range of cultural information. He saw himself as writing in a tradition of literary, historical geography whose origins went back to Homer, and included Hecataeus and Herodotus.

The value of Strabo's work also lies in the fact that it fills certain gaps in our knowledge of his predecessors. He opens his *Geography* with a history of geographical writing from Homer down to his own day, providing critiques of earlier geographers such as Eratosthenes, Eudoxus, Artemidorus, and Hipparchus. The first two books thus provide us with an invaluable survey of ancient geographical practice, including, among other things, details about ancient mapmaking practices and attempts by Aristotle and Eratosthenes to measure the earth.

In the remainder of the work Strabo describes particular regions. He begins with Europe and works his way east to Asia, ending with north Africa. Within that range he discusses Spain (book 3); Gaul, Britain, and the Alps (book 4); northern Italy (book 5); southern Italy and Sicily (book 6); northern, eastern, and central Europe (book 7); Macedonia and Greece (book 8); Athens, Boeotia, and Thessaly (book 9); and Aetolia, Crete, and certain Greek islands (book 10). His coverage of Asia Minor is divided into four books: Caucasus and Armenia (book 11); Galatia, Bithynia, and Lycia (book 12); the Troad, including the island of Lesbos (book 13); and Ionia, Caria, Samos, Chios, Rhodes, and Cyprus (book 14). The remaining three books describe India and Parthia (book 15); Assyria, Babylonia, Mesopotamia, Syria, Phoenicia, Palestine, and Arabia (book 16); and finally Egypt, Ethiopia, and Libya (book 17).

The books which deal with Greece contain more mythological and historical information than any others. The section on Olympia (8. 3. 30), for example, has as much discussion of Homer as it does of geography. With regard to his reliability, there are times when it is clear that Strabo has visited the locations under consideration. He describes the coast of Attica in such a way that it seems likely that he circumnavigated it. At other times he seems to have relied largely on other sources. The passages on Boeotia are apparently taken largely from earlier writings, most notably the catalogue of the ships in book 2 of the *Iliad*. Most scholars would agree that Strabo probably never visited the interior of Attica, and perhaps that is true for the rest of mainland Greece as well.

We have no way of knowing whether Strabo's work ever fulfilled its task of aiding some ancient general or politician. We do know that the geography did not find a wide audience in antiquity. Strabo's work was apparently not known to the Romans, not even to Pliny the Elder, although the Jewish historian Josephus referred to it. His work was apparently not much used in the Byzantine and medieval periods, but the first translation of his text into Latin (1472) preceded Columbus's voyages by only 20 years. For the next 400 years Strabo's work was in the public eye. As an exemplar of idiographic, or descriptive, geography he was much admired. A prominent German geographer of the 16th century, Sebastian Munster, was referred to as the German Strabo. His *Cosmographia Universalis* was a standard work for over a century. By the mid-19th century such universal geography had become impossible for one man to compile. The trend was toward specialization, and from that point on, Strabo was forgotten as more modern methods of geographical research evolved.

For all that, Strabo's approach to geography is remarkably modern, a suitable predecessor to the current integration of physical and cultural geography. His prose does not, perhaps, reach the heights of literary achievement, but it is serviceable and he does not claim to be writing a literary masterpiece. A. Lesky's harsh judgement (*History of Greek Literature,* London, 1966, p. 890), that Strabo is "not important in any way", is surely unmerited. The value of his work as a compendium of cultural information, a historical geography, and a philosophy of geography is inestimable.

TIMOTHY F. WINTERS

See also **Geography**

Biography

Born at Amaseia in Pontus *c.*64 BC, Strabo was a pupil of Aristodemus of Nysa and later studied philosophy at Rome. He knew the philosopher Posidonius from whom he may have developed the idea of writing a historical geography. He wrote two major works: a universal history in 47 books (lost) and a *Geography* in 17 books which survives. He died *c.*AD 19.

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SUPERSTITION

Superstition, taken to refer to a mechanical application of ritual without regard for or knowledge of either the outcome or the reasons underlying the act, can be said to exist in one form or another in every culture and society. In this sense the term is derisive and negative. For that reason one would be hard pressed to find any person or group of persons who jealously claimed that they were superstitious or that their beliefs amounted to superstition. Nevertheless, the word does have a certain currency in discussions of religion and magic. Modern scholarship has yet to purge it of its purely negative connotations or to arrive at any adequate definition of it.

The Greek term for superstition is *deisidaimonia* which roughly means "fear of the divine". The adjectival form of the word, *deisidaimon,* entered the language in the early part of the 4th century BC and bears a neutral, if not positive, meaning. Thus in the *Cyropaedia* Xenophon uses it to designate the piety of Cyrus' soldiers. Writing a few decades after Xenophon, Aristotle in the *Politics* also uses the word in a positive sense, saying that a populace takes comfort in a leader who is pious.

Deisidaimonia is far more commonly used in a derogatory sense, and the ancients commonly supposed that women were especially susceptible to it. The most famous discussion of *deisidaimonia* occurs in the *Characters,* a short tract by Aristotle's student and successor Theophrastus, whose purpose was to present the reader with a catalogue of various personality types. Among those enumerated is the type that suffers from *deisidaimonia* or superstition, which, in his words, is a form of cowardice with respect to the divine. People of this type are mechanical and fastidious in their observance of ritual. They live in a state of anxiety and are for ever concerned with the proper observance of rituals no matter how trifling or strange. To cite one example, "upon seeing a crazy person or an epileptic, with a shudder he spits into his bosom."

Writing some 400 years later, Plutarch informs us in an essay devoted to table talk that belief in the evil eye was a superstition that could be ridiculed by the educated classes of his day. In a separate tract *On Superstition* he discusses more fully the meaning of *deisidaimonia.* In his view, it is akin to atheism, the latter resulting from the former, but not vice versa. Furthermore, *deisidaimonia* arises from false reasoning and is characterized by an almost pathological fear of the divine.

Accordingly, a fundamental tenet of *deisidaimonia* is a belief that the gods are evil and visit misfortune upon man, whereas the atheist attributes such misfortunes to chance.

For Christian writers *deisidaimonia* was a convenient term with which to attack traditional pagan belief. In this way Clement of Alexandria, writing his *Exhortation to the Greeks* during the last half of the 2nd century AD, labels non-Christian belief *deisidaimonia* and calls its believers superstitions. In this work, *deisidaimonia* has a sense of demon worship characterized by festivals and sacrifice. While exceptional, it is worth noting that the author of Acts depicts Paul applying this word to the Athenians in the positive sense of "godfearing". Despite this, the general trend throughout antiquity for Christian and pagan alike was to view *deisdaimonia* as negative. In more modern times it is worth noting that the *Didaskalia Patriki* from the 18th century equates superstition with a belief that Christianity depends upon its Churches for survival. Here the emphasis on symbol over faith appears to be the distinguishing mark of superstition.

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See also **Atheism; Evil Eye; Magic**

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SYLLABARY, CYPRIOT

The syllabic writing system used on Cyprus from the Bronze Age to the Hellenistic period

It is more precise to speak of "Cypriot syllabaries" than "the Cypriot syllabary", for there have been discovered many forms of syllabic scripts on Cyprus, corresponding to at least two distinct languages (probably more), and dating from the 16th to the 3rd centuries BC.

The earliest syllabic script on Cyprus, the vehicle of a language commonly called "Cypro-Minoan", remains undeciphered. This script has been found on objects dating from the 16th to the 12th centuries BC, including clay tablets, vases, cylinders, and balls, various objects of bronze, copper, and silver, and cylinder seals. The script generally runs from left to right, though a few short inscriptions run from right to left, and at least one is written in boustrophedon fashion ("as the OX plows", running alternately right to left and left to right). At least 85 distinct signs have been identified, each probably representing a complete syllable – i.e. a vowel sound or a consonant–vowel combination, but not an unvocalized consonant (as in a true alphabet). The subject matter of the Cypro-Minoan inscriptions is obscure, of course, since the script is undeciphered, but the inscriptions appear to serve practical purposes: personal names to identify ownership, records of economic transactions, and lists of names and objects. Even in the present state of ignorance about the language underlying these inscriptions, the fact of there being so many inscriptions on such a

variety of objects, all distributed over a wide area, conveys the idea of a general population on Cyprus that had achieved at least a limited degree of literacy by this early period.

The Cypro-Minoan script and the Linear B syllabic script of the Greek mainland stand in equal relation to the Linear A syllabic script of Crete, both Cypro-Minoan and Linear B being offshoots of the even more ancient Linear A. The relationship between these three syllabic scripts was not understood at first, but it is now generally accepted that even the earliest Cypro-Minoan inscription, a small fragment of a clay tablet from Enkomi (on the east coast of Cyprus) containing three lines of text with 20 distinct signs and dated to the late 16th century, is derived directly from Minoan Linear A. Perhaps as many as 18 of the 20 distinct signs on the Enkomi tablet have parallels in Linear A, while none of the 20 signs has been found in any Near Eastern script. This confirms what had been well known from other archaeological evidence: that Cyprus during this period was within the orbit of Minoan Crete. It implies further that epigraphic contact between Crete and Cyprus may date as far back as the late 17th century BC. As this is well before the arrival of Greek-speaking Mycenaeans on Cyprus, the source of the early Cypro-Minoan script can now be confidently ascribed directly to Minoan Linear A, without the intermediation of Mycenaean Linear B.

The script of the Enkomi tablet is the prototype of the three subcategories of Bronze Age Cypro-Minoan (CM) script, which have been classified by type of text, location of find, and writing style: CM 1 (the local script from all over Cyprus), CM 2 (from Enkomi), and CM 3 (from the region of Ugarit in Syria). As such, it is also the ancestor of the second major category of syllabaries on Cyprus: the later Archaic and Classical Cypriot syllabary.

While the Archaic and Classical Cypriot syllabary is epigraphically the natural evolution of the Cypro-Minoan, the language conveyed by the Cypriot syllabary has been understood for over 100 years, its decipherment having been initiated by George Smith in 1871. The language is Greek. Mycenaean Greek traders had begun to focus their attention on Cyprus from as early as the late 15th century BC, and trade between the two countries – as evidenced by the vast quantity of Mycenaean pottery that continues to be found on Cyprus, as well as by the juxtaposition of Mycenaean and Cyprian goods recently discovered in the underwater excavation of a Bronze Age trading vessel wrecked off the coast of Ulu Burun – grew enormously in the 14th and 13th centuries BC. Finally, in the wake of the disturbances that inundated the Mediterranean at the end of the 13th century BC, large numbers of Mycenaean Greeks, displaced from their palace states on the Greek mainland, fled both westward and eastward, one of the more attractive destinations being Cyprus.

These Mycenaean refugees brought with them their language – a dialect of Greek now designated Arcado-Cypriot – which they began to transcribe in the writing system already in place on Cyprus. Like the Linear B syllabary on the Greek mainland, the Cypriot syllabary served this purpose adequately; and the fact that some of the later Cypriot signs – *na*, *se*, *pa*, *po*, *to*, *ti*, *ta/da*, and *lo/ro* – are nearly identical to Linear B signs of the same value shows that some crossfertilization occurred. The Cypriot syllabary has the same five vowel sounds as Linear B, and the consonant sounds are only slightly different (the labio-velars are absent; *t* and *d* are not distinguished, while *l* and *r* are). But unlike Linear B, the final consonants *-n*, *-r*, and *-s* are noted, and consonant clusters and diphthongs are fully spelled out. The ideograms that are so common on the Linear B tablets are absent in the Cypriot inscriptions, and, unlike Linear B, the writing direction of the Cypriot script is usually from right to left, perhaps owing to Semitic influence. The system as a whole is somewhat more streamlined, with only 56 distinct signs in the Cypriot script in comparison to the 87 distinct signs of Linear B.

The earliest inscription in the Cypriot syllabary, found in Palaipaphos in southwestern Cyprus and dating from the 11th century BC, is on a bronze spit; it contains five signs – *o-pe-le-ta-u* – which can be recognized as the genitive case of a Greek name, presumably that of the owner of the spit. The next earliest extant inscription does not occur until the 8th century BC, and inscriptions do not become common until the 6th. These are mostly funerary and dedicatory inscriptions on stone, metal, and clay. A very long inscription dating from 480–470 BC, containing more than 1000 signs, has been found in the city of Idalium, in central Cyprus. It is a large bronze tablet engraved with a promise from the king of Idalium to grant plots of land as a reward to a family of physicians who had operated without pay on those wounded in battle during a siege of the city by the Medes. The corpus of Cypriot inscriptions continues to grow as excavations on Cyprus continue, and it can now boast around 1000 members.

It is a matter of some surprise that although the Greek alphabet, modelled on the Phoenician, was apparently current on Cyprus from the 8th century BC on, the syllabic system continued to be preferred until at least the Classical age. But eventually inscriptions began to be written digraphically, with the Cypriot syllabary and the Greek alphabet written side by side, until the spread of Hellenization under Alexander the Great tipped the scales in favour of the alphabetic system.

As an addendum, it should be noted that several inscriptions in the Classical Cypriot syllabary, some as late as the 4th century BC, found especially in the city of Amathus on the south coast of Cyprus, cannot be deciphered as Greek. This unknown, non-Greek, perhaps native language is conventionally called Eteo-Cypriot. Its relation to the undeciphered Cypro-Minoan of the Bronze Age remains obscure.

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See also **Linear B**

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SYMI

Island in the Dodecanese

The Aegean island of Symi lies to the north of Rhodes, of which the nearest point is 24 km away, and almost equidistantly between the two rocky mainland peninsulas of Cnidus and Dorakis, the latter some 10 km to the south; with an area of 64 sq km it is one of the smaller islands of the Dodecanese.

Symi is mentioned briefly in the writings of Herodotus, Strabo, and Pliny, but it was the 6th-century AD grammarian Stephanus Byzantinus, drawing on Classical authors, who provided most of the early information on the island's origins. Initially called Metapontis and Aegle, the island apparently obtained the name Symi from the daughter of Ialysus, called Syme; it was she, with Chthonius, a son of Poseidon, who was held to have first populated the island. At several points in its history the island was deserted, but was finally (according to Diodorus Siculus, 5.33) populated by Argives and Lacedaemonians. In the *De Thematibus* of Constantine VII Porphyrogennetos (913–59) the island is listed in the 14th theme, named Cibyrreote. When Christopher Buondelmonti wrote of the island in his *Liber Insularum* of *c.* 1420 he claimed that its name derived either from Simatis, who had been king of the island, or from *sima*, the Greek vernacular for "near", in reference to its proximity to Asia Minor.

The island's history is dominated by its involvement with the sea, the Symiots being renowned boat builders, sponge fishers, and swimmers. The prowess of the men at building boats was already acknowledged in Homeric times, since during the Trojan War the hero Nireus, the son of Aglaia and king Charopus, is reported (*Iliad*, 2. 671) to have gone with a contribution of three ships from Symi to assist Agamemnon in the Trojan expedition.

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SYMPOSIUM

A *symposion* was a drinking party. It was also the setting from which much of early Greek poetry and philosophy emerged.

The focus of research on symposia is on Greek cities of the 7th to 4th centuries BC: during that period, several forms of evidence concur in demonstrating their crucial importance in Greek culture. They are to be observed in the archaeology of private houses and of temples, in sculpture, in the form and the iconography of vases, and in poetic and prose literature. But if we look for origins, the different kinds of evidence lead us in different directions.

Symposia took place in purpose-built rooms, *andrones* ("men's rooms"), easily recognized by archaeologists because they were designed to take a certain number of couches (usually 5, 7, or 11) around the walls. Sometimes there are surviving floor markings to show the placing of the couches and of the small serving tables. Participants reclined, one or two to a couch. The custom of reclining at banquets and drinking parties is traced to the 7th or 8th century BC in Greece, to the 6th or 7th century BC in Etruscan Italy, and to the 8th century BC or earlier in the Levant and Mesopotamia. The idea thus appears to have spread westwards, and has been linked with Phoenician trading contacts.

Symposia followed an evening meal. Food did not mix with conversation or with cultural pursuits. After eating, a libation of neat wine marked the beginning of the drinking; the libation was mainly for the gods, however. Wine, in large quantities, was then mixed with at least equal volumes of water for the symposium itself. The ideal strength of the mixture was a matter of argument: it was decided on each occasion by the host or by a participant who was chosen as *symposiarchos* ("party ruler"). Mixing was done in a large vase (*krater*). Vase paintings show how attendants ladled wine from the *krater* into individual cups. *Krateres*, accompanied by drinking cups, are well known from Classical Greece (and Greek vases were exported in great numbers to Etruria, where they are found as grave goods), but there are also vases of similar forms from much earlier sites in Greece and the southern Balkans, suggesting that the wine-mixing ritual is to be traced back locally to prehistoric times.

Vase paintings depict many other details of the typical or ideal symposium. Sweets, dried fruit, and nuts accompanied the wine. Toasts were drunk, often praising the beauty of boys; some vases appear to have been commissioned as mementos of this. Music was played, both by participants and by slave entertainers such as the ubiquitous "flute-girls" (*auletrides*). Philosophy, politics, and many other topics were discussed; poems and songs were recited. Dancers, acrobats, and prostitutes might be hired. Drunkenness supervened – slowly, since the wine was diluted – but almost inevitably, since not to drink was a cause for mockery and the proceedings might well last all night. Symposia allowed free speech and the release of inhibitions: proverbially, things said and done there were to be forgotten, or at any rate not to be betrayed, the next day.

In Greece the symposium was essentially an activity for those of citizen status, and for men only. The latter was apparently not true of Levantine drinking parties and certainly not of Etruscan ones. In Greece any women who were present were slave entertainers or *hetairai* (courtesan) and in either case

sexually available; participants' wives and daughters were not to be seen. The presence of adolescent boys, under the aegis of a parent or a lover, may be regarded as a form of initiation into adult male society.

There was a genre of short poems composed specifically for recitation at symposia, *skolia* or drinking songs. There is persuasive evidence that much of the rest of early Greek poetry, including elegy, iambus, and monodic lyric, was typically performed at symposia too. As a setting for philosophical discussion symposia appear in different, but complementary, lights in the *Symposium* of Plato and the *Symposium* of Xenophon, in both of which Socrates is depicted as a participant. These two works mark the beginning of a literary genre of dialogues with a sympotic setting and, in general, with moral, philosophical, or scholarly themes; examples survive by several much later authors, including Lucian and Plutarch.

While feasting might often be a municipal, and an essentially public, activity, symposia may be seen as essentially private. How far the practice was common to different social classes must have varied from place to place. In the Archaic period, for example, symposia are integral to the aristocratic society depicted in the lyrics of Alcaeus and Anacreon; they are not apparent at all in Homer or Hesiod, though aspects of sympotic behaviour have been observed in the feasts of the *Odyssey* and *Iliad*. In Classical Athens, if we may judge by the written sources, people who went to symposia consisted of a fashionable, cultural, and political elite; others did not know how to behave at such a gathering, or even how to recline elegantly, as Streptocleon teaches his father Bdelycleon to do in an amusing scene from Aristophanes' *Wasps*. Some participants were wealthy enough to act regularly as hosts, while others were perpetual guests or *parasitoi*, tolerated or welcomed for their entertainment value.

It is far from clear how long into Hellenistic or Roman times the symposium remained a living institution. In the 2nd century AD Plutarch's *Symposium Questions* claim to be based on social gatherings that were similar to Classical symposia in their intellectual content if not in their sexual freedom. This is the latest significant source for symposia as a feature of contemporary society.

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SYRACUSE

City in Sicily

Syracuse (modern Siracusa) was the leading city of Sicily virtually from its foundation in 733 BC until its sack by the Arabs in AD 878. It was founded by Corinthian colonists led by Archias, one of the Bacchiad aristocracy of Corinth, who placed his settlement on the island of Ortygia which was well supplied with water: the spring of Arethusa on the waterfront was potable until an earthquake early in the 19th century allowed sea water to seep in. Myth related that, as the nymph Arethusa fled from her lover Alpheus, Artemis saved her from rape by changing her into a spring and her wooer into a river. Strabo claimed that the Alpheus river in the Peloponnese flowed underground to Syracuse where its water mingled with the spring.

The earliest settlers monopolized the land, reducing the native Sicels to serfs, and they became a landowning aristocracy called the Gamoroi. The city prospered, pulling ahead of its nearest rivals Gela and Acragas. It had outgrown Ortygia by the mid-6th century BC, when the island was connected to the mainland by a mole and the population spilled into the Neapolis area. A temple to Apollo was built *c.*565 BC (it is considered the earliest of Sicily's great Doric temples), and it was soon followed by a temple of Olympian Zeus outside the city, south of the river Ciane. In 485 BC the Gamoroi, who had been expelled by a popular uprising of the Syracusan commons and the Sicel serfs, appealed to Gelon, tyrant of Gela, who took Syracuse easily and transferred his headquarters there, conscripting new citizens from Gela and expanding at the expense of Syracuse's neighbours. In 480 BC he destroyed a Carthaginian invasion force at Himera on the north coast, and one monument of this is the Doric temple of Athena which was transformed into the cathedral of Syracuse in AD 640 and is still in use.

Gelon's brother Hiero (478–467 BC) succeeded him as tyrant, but he was a harsh, unpopular ruler, and a year after his death a general uprising ousted his brother and successor Thrasbylulus, and founded a democracy. Yet Syracusan politics were still unsettled at the time of the ill-fated Athenian attack (415–413 BC) which ended with the annihilation of the Athenian forces. Hermocrates, the hero of the Syracusan resistance, was no supporter of democracy, and after the Athenian debacle, when he left Syracuse to lead a squadron of warships to help the Peloponnesian allies, the democratic statesman Diodes persuaded the city to adopt a new constitution and lawcode. Hermocrates was banished in 409 BC, but he returned to Sicily, and in 407 BC he was killed attempting to force reentry into Syracuse.

Yet one of his followers, Dionysius "the Elder", did manage eventually to seize power and he held it until his death 38 years later, Early in his tyranny Syracuse narrowly avoided capture by a Carthaginian army, which was first weakened by pestilence and finally utterly defeated by a Syracusan attack. Refugees from Acragas, Gela, and Camerina enlarged the city's population, and Dionysius strengthened its defences with walls along the triangular Epipolae ridge and the Euryalus fort (modern Castello Eurialo) at its apex. Dionysius' son and namesake was of a different stripe. Good-natured, impractical, and ultimately oppressive, he toyed with the idea of

becoming a Platonic statesman with Plato as his adviser, and for three years (357–354 BC) his step-uncle Dion, having seized power, tried to play the philosopher king and succeeded only in becoming a despot. He was killed by his own soldiers in 354 BC and Syracuse lapsed into anarchy which not even Dionysius II's return to power seven years later could remedy. Finally, with Greek Sicily depressed and Carthage threatening again, Syracusan exiles appealed to Corinth, which sent Timoleon who ousted Dionysius, defeated Carthage, and revived Syracuse.

After Timoleon's death another revolution in Syracuse brought in an oligarchy, and in 317 BC Agathocles seized power, backed by mercenaries from Campania and exiles from the Greek cities. He vigorously resisted the encroachment of Carthage, even invading Carthaginian territory in Africa itself, while at home the conduct of affairs seems to have been peaceful. Disorder followed his death in 289 BC until around 270 BC, when Hiero II began his reign of more than 50 years. Hiero II was a paternalistic despot who shrewdly allied himself with Rome in the First Punic War, and consequently, when Sicily became a Roman province, Syracuse remained a free Roman ally and a centre of Greek culture which could claim the poet Theocritus and the scientist Archimedes. Hiero's successor, his grandson Hieronymus, reversed his policy, but did not live to see the result. A coup overthrew him, and out of the bloodshed that ensued, a pro-Carthaginian faction seized control and Rome laid siege to the city. Syracuse resisted valiantly, helped by the ingenious devices designed by Archimedes, and Carthage sent help, but disease carried off much of the Carthaginian army. Hope vanished by the autumn of 212 BC, and traitors opened one of the gates of Ortygia. In the pillage that followed, Archimedes was killed by a Roman soldier who failed to recognize him.

Syracuse now became the seat of the praetor or governor of the Roman province of Sicily, and we get a glimpse of the city under Roman rule in Cicero's orations against Verres, a corrupt governor who looted the province. It suffered in the civil war following Julius Caesar's assassination in 44 BC, and the emperor Augustus planted a colony there in 21 BC.

Modern Syracuse is rich in monuments of the Graeco-Roman past. In Ortygia there are the badly damaged temple of Apollo, *c.*565 BC, and the temple of Athena, now the cathedral, *c.*480 BC. There are also remains of a large unfinished Ionic temple, which would have borne comparison with the great Ionic temples of Hera on Samos and Artemis at Ephesus. On the mainland is the temple of Olympian Zeus, *c.*550 BC, where two columns still stand. The great Greek theatre was remodelled frequently for different uses, and there is a small, unexcavated Roman theatre that was probably used for drama when gladiatorial games became the staple of the Greek theatre. The fortifications of the Epipolae ridge have been extensively modified since they were built by Dionysius I. The great altar of Hieron II was built between 241 and 215 BC for mass sacrifices of victims when the festival of Zeus Eleutherios was held, and the Roman amphitheatre (3rd century AD) is one of the largest still in existence. The Christian catacombs are more extensive than in any other city except Rome.

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See also **Sicily**

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SYRIA

The name Syria is variously used in ancient sources. At its widest it is applied to the whole area from the Egyptian border to the Taurus mountains covering modern Israel, Phoenicia, Jordan, Lebanon, and a small part of Turkey. More often Palestine and Phoenicia are excluded from it. In late antiquity Syria was subdivided into ever smaller provinces. Greek traders were active at the Syrian trading centre of Al Mina at the mouth of the Orontes river from around 825 BC. At first they shared it with Phoenicians; later they almost monopolized the emporium. In the late 8th century BC Euboeans predominated. In the 7th century BC the most common pottery was Corinthian, from the later 6th century BC Athenian. Through this trade oriental skills came to Greece at the end of the Geometric period: gold workers learned techniques of granulation, filigree, and inlaying; craftsmen, especially potters, decorated their wares with oriental imagery, with sphinxes, griffins, roaring lions, and lions fighting men. Greeks heard stories about the origin of the world and the birth of the gods that were to be reshaped by Hesiod and to become part of the Greek heritage.

Al Mina remained an important centre until after the conquest of Syria by Alexander the Great (331–333 BC), when it was replaced by Seleuceia, founded 6 km to the north in 301 BC by king Seleucus Nicator, founder of the Macedonian Seleucid dynasty that was to rule Syria until Pompey turned it into a Roman province in 64 BC. At the time Syria had few and small towns and as part of his policy of settling veteran soldiers and immigrants from Greece Seleucus founded ten cities: the biggest was Antioch; second-order cities were Seleuceia, Apamea, and Laodicea; others were Beroea (Aleppo), Chalcis, Cyrrhus, and Zeugma. All were laid out on a grid plan and were given the political institutions of a Greek city. Subsequently Greek culture became exceedingly popular all over greater Syria, and

ruling groups everywhere gradually adopted Greek ways, local gods were identified with Greek deities. Young men took up athletics. Wealthy men spent money to provide Greek-type civic amenities for their fellow citizens. So the Greek way of city life spread from the Greek colonies to native towns and larger settlements. Only among the Jews, thanks to the revolt led by the Maccabee family (168/67 BC), was Hellenization checked.

When the Romans took over Syria they divided the province into city territories and delegated most administrative tasks to the civic authorities. So cities flourished under Roman rule and Hellenism in the cities. While a large part of the country population, and a considerable part of the urban population as well, must have retained their Aramaic language and traditional customs, all visible aspects of their way of life, the architecture of temples and houses, the images of gods, the language of monuments and tombstones, came to be almost exclusively Greek. The earlier literary traditions of the area, except those of the Jews, appear to have faded out. What knowledge we have, for instance about the Phoenicians, has been transmitted through Greek writers. By the 2nd century AD all Syrian inscriptions, except at Palmyra which had a bilingual culture, were in Greek or occasionally in Latin. It was only in late antiquity that Aramaic inscriptions were once more displayed in Syria. This was a consequence of Syriac becoming a literary language in Mesopotamia, especially at Edessa and Nisibis, in an environment that was bilingual in Greek and Aramaic. Syriac was used by Christians in Mesopotamia, and became the liturgical language of the Monophysites in Mesopotamia and Syria, and of the Nestorians in Persian Mesopotamia. Some works composed in Greek have survived only in Syriac translation and Syriac hymnography strongly influenced the development of the Greek kontakion, or short hymn.

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See also **Arabs; Colonization; Phoenicians; Seleucids**

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T

TARENTUM

City in south Italy

The city of Tarentum (modern Taranto), a colony of Dorian Sparta, was situated on the north coast of the gulf of Tarentum facing the Ionian Sea. The acropolis is perched on a peninsula between two harbours – a main outer harbour and an inland tidal lagoon. It was one of the best ports in southern Italy, with access to good cornlands in the interior.

The literary tradition records that the site was founded in 706 BC (Eusebius, *Chronica*, 91b Helm); the archaeological evidence supports this date. Myth relates that the settlement was established by a group of *Partheniai*, the illegitimate offspring of helots, or slaves, and Spartan women, led by their founder, the *oikistcs* Phalanthus. The Delphic oracle directed the settlers to found a colony on the south coast of Italy, rather than closer to home in the Peloponnese, in effect legitimizing colonization by means of war and conquest. What is certain is that this was a group of dissatisfied Spartans, perhaps remnants of the pre-Dorian population or others disenfranchised in the aftermath of the First Messenian War (743–724 BC), affected by a social crisis involving land and status. The site was established through the conquest and expulsion of the native inhabitants – Iapygians, Peucetians, and Daunians. Tarentum is unusual in that it had a "double" founder; the second was the eponymous hero Taras, the mythical leader of the pre-Greek Iapygian settlement.

The area was known to the Greeks, especially the Rhodians, from the Mycenaean period on through trade. Despite this long history of contact, the original settlement expanded only slightly to the southeast in the Archaic period, as the inhabitants were afraid of the native tribes. In the late 6th or early 5th century BC Aristophilides appears to have ruled according to a constitutional model based on that of Sparta, with kings and ephors – officials elected both by lot and by vote. The colony retained Spartan cults in their new homeland, continuing to worship Apollo Hyacinthus, and Spartan rituals, such as the burial of the dead within the city walls. It also continued to maintain close ties of kinship with its mother city. There are few remains of the Greek city today because modern Taranto occupies the same site, but Strabo (6. 3. 1) mentions an Archaic Doric temple thought to be dedicated to Poseidon (late 6th century BC), an altar to Aphrodite, a sanctuary of Demeter and Persephone (containing terracotta votive offerings from the 7th and 6th centuries), and other religious structures.

In the early part of the 5th century BC Tarentum enjoyed victories over its Messapian and Peucetian neighbours (*c.*490 and 460 BC), taking slaves and expanding along the coast to the southwest. The city commemorated these events with the erection of a monument at Delphi. In *c.*475 BC, though, it suffered a crushing defeat at the hands of a native confederation led by the Iapygians, and much of the aristocracy was destroyed, providing the impetus for the establishment of democracy (Herodotus, 7. 170). At the end of the 5th century BC the settlement began to expand once again, filling the vacuum left by the destruction of its rival Croton, a powerful city to the west. This expansion brought Tarentum wealth and power, and it now became the leading Greek centre in southern Italy. In 433 BC the city founded a colony itself at Heraclea (Policoro) on the west coast of the gulf, which acted as a counterweight to the Athenian colony at Thurii, and served as the new head of a league of Italiot Greeks. It was allied with Syracuse in the Peloponnesian War, contributing ships to the cause and sending corn to Sparta, in an attempt to offset Athenian power in the region as well as support its mother city. Consequently it was invaded by the Athenians.

Tarentum began to develop a reputation for possessing many great works of art. Among others, Pythagoras of Rhegium created a famous statue of *Zeus and Europa* which graced the city centre. In the same period the Apulian school of pottery, founded by Greeks who came from Thurii to Tarentum, established its centre in the city (*c.*420 BC). This school was known especially for its representations of myth and comic parodies on the vessels it produced. Much of what we know about Greek theatre today is illustrated by the images painted on these vases. Terracotta figurines and antefixes were also widely exported from the city.

Tarentum attained its greatest wealth and power in the 4th and 3rd centuries BC, at which time it became the pre-eminent city in Magna Graecia, renowned for its luxuriousness. The

extent of its wealth and political power is indicated by the great number of goods produced in the city, as well as its attractive series of coins, which were distributed widely around the shores of the Mediterranean Sea. In the early 4th century BC politics were dominated by Archytas, a Pythagorean philosopher-mathematician and friend of Plato, who expanded Tarentine influence in the area. After the mid-4th century BC the city's difficulties with the surrounding native tribes increased, and it requested help first from Sparta, and then from a series of mercenary princes and kings. Initially it called upon Archidamus III of Sparta (338 BC), who died in battle. Then Alexander I of Epirus came to its aid. In the beginning he was successful, but was eventually slain *c.*330 BC. The next call for help was directed to Cleomenes of Sparta, who also ultimately failed.

Tarentum was host to many famous residents and visitors in this period. Aristoxenus, a philosopher and musician, developed his theory of harmonics there. Rhinton was a comic dramatist who popularized *phylax* farces – local productions that drew on daily life for their inspiration. It was famous as well for its fine works of art, both large and small. At this time Lysippus of Sicyon created a large bronze statue of *Zeus and Hera* for the city. It was a major centre of production for votive figurines of terracotta, primarily religious in nature, which were precursors of the well-known Athenian and Tanagran types. It was also known for its limestone architectural sculpture adorned with human figures.

Towards the end of the century, the inhabitants of the city became fearful of the growing power of Rome, and felt threatened by Roman aid to the nearby cities of Thurii, Locri, and Rhegium. Despite having signed a treaty in 303 BC, in the early 3rd century Tarentine forces attacked Roman ships in the harbour and insulted the Roman ambassador. These actions precipitated war with Rome. Tarentum once again enlisted the help of an Epiriot ruler, Pyrrhus, who responded to its request in 281 BC. The Tarentines were soon joined by the native tribes of the Bruttians, Lucanians, and Samnites. At first Pyrrhus enjoyed a number of successes, especially against the Carthaginians in Sicily, but the city felt threatened by the king's growing power and his plan for a united kingdom of Sicily and lower Italy, and withdrew its support. Upon Pyrrhus' departure, the Romans took over in 272 BC, forcing territorial concessions from the Tarentines. The city became an ally of Rome in 270 BC and the struggle for the control of central Italy was over, with Roman domination of lower Italy now assured. Many of its art treasures were carried off to Rome. At this time the city was the home of Livius Andronicus, a Greek-born slave, who produced comedies, tragedies, and a Latin translation of the *Odyssey*. He played an important part in the creation and development of Latin literature.

A group of Tarentine aristocrats revolted in the Second Punic War (218–201 BC) and went over to Hannibal (213 BC), who fortified the lower city, but it was retaken by Rome in 209 BC. The extension of the Via Appia and the founding of Brundisium (Brindisi) undercut its trade, and part of its territory was confiscated. The city declined from this period on, although it probably regained allied status in 180 BC. It subsequently received colonial status and became a provincial Italian town, but there is much epigraphical evidence of civic activity and mention of the importance of its products – wool, textiles, purple dye made from the processing of murex shells, and agricultural produce. Strabo maintained that the city was still linguistically and culturally Greek in his time (6. 1. 2), but this is controversial. Horace (*Odes*, 3. 5. 53–56) described it as a suitable holiday place for a tired businessman.

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See also **Magna Graecia**

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TAXATION

The earliest Greek taxation system that can be discussed in detail is that used by the kingdoms that ruled Greece in the Mycenaean period. In this system each village was responsible for producing specific amounts of individual commodities such as wool and wheat. Taxes were thus of the direct variety and were paid in kind, i.e. with produce rather than with money.

The simpler forms of government that arose after the collapse of Mycenaean civilization adopted equally simple forms of taxation. The ruler (a relatively weak king) was given the use of a piece of public land, the produce of which supported the royal household and paid for the few public functions that were undertaken.

The more complex forms of political organization that arose around 800 BC made use of three basic taxation systems. The simplest of these was used exclusively by Sparta, which was ruled by a fairly numerous military elite. The members of this group were exempt from all taxes and were fully supported by mandatory contributions in kind levied on the serfs assigned to each individual's estate. Apart from small gifts presented to royalty, no other regular taxes existed.

The second system of taxation of interest here was used primarily in cases where the state was ruled by a limited number of individuals, Examples include Corinth under the Cypselid family (*c.*650 BC) and Athens under Pisistratus and his sons (*c.*540 BC). This system relied on direct taxes imposed on the entire population. The most important imposts were a 10 per cent levy in kind on agricultural produce and a yearly fee (a head or poll tax) due from each individual. Indirect imposts, including customs duties and sales taxes, also played a role. The payment of direct taxes by the entire population was a reflection of the concentration of political power.

The link between political power and taxation is also evident in the third system, which is most clearly known from its manifestation in democratic Athens (510–322 BC). Democracy entailed the participation of a substantial number of citizens, who expected to be compensated for their services. At the same time, the obligation to pay direct taxes was seen as a form of subservience. The existence of a democratic government thus meant that a significant revenue stream had to be generated without the imposition of direct levies on most of the state's residents.

A vast variety of indirect taxes were levied on all Athenians. These included customs duties, sales taxes, and levies on banking transactions. Direct taxes in the form of a head tax were paid only by resident aliens. However, the limited number of non-citizens made direct taxation on citizens unavoidable. This taxation took the form of "liturgies". A liturgy was a governmental expense, such as the maintenance of a warship, that was assigned directly to an individual. The liturgist was responsible for providing all necessary funds to complete the designated project. In Athens the wealthiest residents, both citizens and aliens, served as liturgists. This practice was politically expedient since it provided government financing without the use of a direct tax.

The practice of imposing liturgies also simplified the state's administrative duties. The vast number of individual taxes that were imposed and the fact that Athenian taxes were due in the form of money rather than in kind made the collection and supervision of revenue a complicated process. Liturgies provided one solution to this problem by uniting taxation and expenditure. Tax farming was another solution.

Rather than appointing agents to collect taxes, the Athenian state auctioned off ("farmed") the right to procure the revenues generated by a particular impost. In exchange for an advance payment to the state, the tax farmer was granted the right to collect a specific impost for a specific period of time. This practice had two advantages. First, the administrative demands placed on the state were greatly reduced. Second, the yield of each impost was known and acquired in advance. This greatly simplified the process of planning and financing government expenditure.

This system of taxation was shaped by the diffusion of political power engendered by democracy. Other Greek states with democratic government structures took a similar approach to taxation. The political evolution of Greece, however, moved in a direction that made such situations unusual. By the end of the 4th century BC most of Greece was ruled by large kingdoms. The taxation system used by these kingdoms bore a striking resemblance to that used in earlier Greek states ruled by a limited number of individuals. Direct taxes in the form of levies on agricultural produce and a head tax were the primary sources of government revenue. The needs of the kingdoms were such that taxes were levied in monetary form, which again complicated the process of collection. This prompted the use of tax farming.

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See also **Finance**

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TECHNOLOGY

Technological discoveries and importations from elsewhere are notoriously hard to date in the ancient world. Many techniques leave little or no archaeological evidence and literary mention is sporadic and incidental before the Hellenistic period. Even then from the 3rd century BC we have little other than the Aristotelian *Mechanical Problems* (perhaps by Straton, the head of the Lyceum from *c.*287 to 269 BC) which, though primarily theoretical, does deal with problems in applied mathematics involving levers, compound pulleys, etc. The inventor Ctesibius wrote a treatise on pneumatics (now lost but used by later authors), while his contemporary Archimedes, apart from a lost treatise on how to build a spherical planetarium, chose deliberately to write only theoretical mathematical treatises. Around 200 BC Philon of Byzantium composed a compendium of technology whose main concern was the construction of mechanical devices: surviving books deal mainly with pneumatics and war machines. More remains from the Roman period. The tenth book of Vitruvius' Latin treatise *De Architectura* (*c.*25 BC) details relevant technical devices largely drawn from Greek predecessors. The great *Natural History* of the Elder Pliny (mid-1st century AD), despite its title, ignores virtually no field of human endeavour and preserves much information from lost Greek sources. His contemporary Heron of Alexandria is our principal authority for ancient technology, although his books on mechanics survive only in an Arabic translation and in extensive quotations by the 3rd- to 4th-century Pappus of Alexandria, From the Byzantine period little of use was written and even less survives: in the 4th century Oribasius

described mechanical constructions for resetting dislocated limbs; the 5th-century alchemist Zosimus described chemical apparatus and recipes for smelting, dyeing, etc.; while, unfortunately, most of the treatises on mechanics and hydraulics by Anthemius of Tralles (the innovative architect of Hagia Sophia, Constantinople) are lost. Later works are almost entirely mere reworkings of inherited knowledge.

Until the Hellenistic period the Greeks largely used technology that was already existing in the eastern Mediterranean at the time of their arrival in the late 3rd millennium BC, and remarkably few advances were made. The conservative attitude of the Classical period, known in many other areas for exuberant originality, is sometimes attributed to the existence of slavery, but is more probably due to a cultural attitude of the intellectual elite which elevated "pure" far above "applied" knowledge. Even the famous black- and red-figure Attic pottery in the Archaic and Classical periods depended upon a refinement of a technique known as early as the Middle Helladic age (*c.*2000–1500 BC). The Attic potters placed their pots, painted with a clay slip containing iron oxides, in a wood-fired kiln which with the air vents open produced an oxidizing phase, thereby turning both painted and unpainted parts red, up to a temperature of 800°C, between which and 945°C closure of the vents and the introduction of smoke-producing green wood created a reducing phase in which the whole pot turned black. Subsequently the temperature was allowed to decrease and at about 900°C the vents were reopened to create the final, reoxidizing, phase in which the unpainted parts became red again while the sintered areas remained black.

The most advanced technology before the Hellenistic period was probably metallurgy: alluvial gold was caught in fleeces; gold and silver were extracted from lead by cupellation; and ore-bearing rocks were pounded and washed or heated in a blow- and later bellows-heated furnace to separate metal from gangue. The ability to attain a temperature sufficiently high to form iron blooms for hot-hammering (first managed perhaps by the Hittites *c.*1400 BC) was the single most important technological change in Greek history and may have been partly responsible for the downfall of the mainly bronze-using Mycenaeans. Alloys, especially of copper, were developed for specific purposes and soldering was practised. Implements were made by hot- and cold-hammering or casting (including the lost-wax process). Decorative processes included repoussé work and niello inlays (both known in the Mycenaean period), filigree, and granulation. Metal tools in the Classical and especially Hellenistic periods became increasingly precise. Notably carpentry was provided with hammers, chisels, saws (including the frame saw), and planes, while surgery benefited from a wide range of specialized implements. Locking devices also became increasingly ingenious.

The farmer raised water with the *shaduf* (swing-beam with compensating weight). Tillage of the soil was accomplished through the hoe and the usually ox-drawn ard-plough; seed was broadcast by hand from a container slung round the neck; harvesting was done with sickles; grain was separated from chaff by flailing or threshing, in which centrally tethered animals were driven round a threshing floor and the chaff carried away by a breeze when tossed in the air by hand with the grain from a winnowing basket or by a winnowing fan; milling was done in querns. There was little change in agricultural methods until the addition of the threshing sledge, animal- and water-powered mills, and the rare animal-driven reaping machines in the Hellenistic and Roman periods.

Raw, wetted pelts were moulded over hard cores into containers which became stiff when dry. Cleansed pelts cured with salt or sun-dried were rendered imputrescible and water-resistant by numerous vegetal tanning agents with varying resultant colouration, but there is also some evidence for tawing by minerals. Malleability could be achieved by chamoising, the subsequent rubbing with animal fat, which is mentioned already in the *Iliad*.

Spinning was done most commonly by twisting carded wool (or other fibres) drawn from a distaff on to a suspended spindle to which was attached a whorl to steady rotation. Weaving was done on a warp-weighted vertical loom, the threads alternately hanging straight down or passing over a horizontal shed-rod. Different weaves were attained by manipulation of heddle-rods. During the Roman period the loom at which a standing weaver pushed the weft upwards with the weaving sword gave way to one at which a seated weaver pressed it down with a comb, which was itself replaced in turn by a horizontal version. Specific looms for specific fibres were also being designed.

The Hellenistic and Roman periods were by far the most productive time of technological development in Greek history. Nevertheless, despite important practical advances, especially in the areas of building and war machines, even then a love of theory resulted in the invention and description of many contrivances of such great inefficiency that, even if models were ever built, they could not have served any practical purpose. Most notable in this respect are Heron's descriptions of a ball revolving on its own axis through the emission of steam from angled vents, and his device for covertly opening (and closing) temple doors by the pressure of air heated by fire on an altar forcing water to flow into a bucket which in turn tugged cords wrapped around a subterranean extension of the door-posts. On the other hand his related description of figurines making libations when a fire was lit on an altar is eminently feasible, as is Philon's automaton that alternately handed guests a pumice stone and poured water for washing, which led ultimately to similar but far more complex robots in the Islamic world. Toys, such as Heron's automatic theatre which could mechanically produce a puppet show in several acts, were probably made for amusement, while ingenious hydraulic devices that gave moving figures to fountains were to have a long history. One Athenian device of the mid-4th century BC was certainly of practical benefit: the stone *kleroterion* precluded jury-rigging by enabling black and white balls to fall randomly from a hopper down a tube at the side of a series of rows in which potential dicasts had inserted their metal tickets.

In mechanics we find that the lever, which had been known since the Neolithic age, had multifarious applications (e.g. for raising objects and as a steelyard). While the lever-press became common (the wedge-press was also invented), perhaps the most surprising anticipation of the modern world to employ the lever was a slot machine for dispensing ritual water upon insertion of a coin (but whether this was ever constructed or is merely theoretical is not known). The winch and the pulley (both known much earlier separately) were combined in hoisting- and pulling-engines, while compound pulleys became increasingly effective (often incorporated into cranes powered

by human treadwheels). The endless rope or belt, however, seems not to have been employed for transmitting power but only when itself driven, as in the bucket chain for the raising of water (activated by a treadwheel). Both horizontal and vertical capstans were widely used, while Drachmann (1973) believed that the crank had been invented by Archimedes and underwent subsequent experiments, although strangely this simple but efficient mechanism never enjoyed widespread application until the later Middle Ages, and certainly never appeared in antiquity with a connecting rod.

Of great importance was the invention of the screw-line ("the snail on the cylinder"), attributed to Apollonius of Perge, a younger contemporary of Archimedes who promptly employed it in his *cochlea* ("water-snail") for the raising of water. Screws were used more for moving and adjusting than for holding down (in which role they first appear in goldsmithery). Corresponding female screws made large presses (e.g. fullers' and olive-presses) more efficient than the alternative lever- and wedge-presses. Female screws were first cut into a split block which was then rejoined, but Heron describes a machine for their manufacture. The impossibility of making them small, however, meant that many instruments (e.g. the gynaecological *specula matris*) had to use the inferior method of a screw with an engaged peg.

Cogwheels, of wood for large machines and of metal for small, were employed for transmission in four ways. The rack and pinion is first attested in a water clock made by Ctesibius, but is not found again until Heron's toys (e.g. a self-snuffing lamp). Archimedes is credited with both inventing and employing in war machines the endless screw (the worm-and-wheel gear), but it does not appear again until Heron, who used it for, among other devices, his surveying instruments the *dioptra* (theodolite) and hodometer. Chronologically next probably comes the use of parallel engaging wheels. Although these were generally inefficient owing to an inability to find the optimum shape, there has been found in a shipwreck off the island of Anticythera a calendarial celestial computing mechanism from *c.*80 BC (the sole surviving machine from antiquity) containing three brass dials and 31 cogwheels of different sizes with teeth in the shape of equilateral triangles: that this was actually used is proved by the evidence of repairs. Toothed wheels engaging at right angles are not attested until Vitruvius, who describes an undershot water wheel that gives motive force to a corn mill, a device of longterm practical benefit. (An overshot wheel is depicted in the Roman catacomb of S. Agnese in a representation of probably the 3rd century AD, probable remains of one from the 5th century have been found in the Athenian Agora, and a certain example has been recently excavated from 9th to 10th century Byzantine Thebes. The wind-driven wheel, mentioned for Seistan, Afghanistan, in the 10th century AD, did not appear in the Greek world until the 14th apart from a miniature experimental usage by Ctesibius.)

In hydraulics and pneumatics the most important advance was in the increasing application of the syphon (used earlier for mixing liquids), which led not only to ingenious toys and drinking vessels (such as one still made in a Chiot village) but to the ability to force water to rise in aqueducts (at Pergamum in the 2nd century BC the citadel was served at 155 m above the lowest level of the aqueduct). Ctesibius' experiments in pneumatic machines, such as his organ (operated from a keyboard) in which water pressure forced air through pipes, led him to the invention of the force pump with cylinders and plungers operated by horizontal levers and vertical connecting rods. One adaptation for fire fighting had a nozzle that could be swivelled in any direction and tilted both ways. Surviving examples of pumps have both flap valves and the superior spindle valves. Ctesibius also improved the accuracy of timekeeping by ensuring a uniform flow in the *klepsydra* (water clock), to which he attached, in addition to all manner of entertaining automata, a figure with a pointer to indicate the hours on a column. Vitruvius describes a later water-driven clock which more efficiently adjusted the varying length of ancient hours on a revolving disc engraved with the zodiacal constellations.

Of great practical value was the development, probably in Hellenistic Syria *c.*100 BC, of glass blowing. Hitherto only modelled around a core of sand or poured into a mould when molten or carved when cold by hand or lathe, glass now became a common and relatively cheap material for vessels of daily use. More expensive articles were subject to an exuberant range of decorative processes including marvering, trailing, engraving, and painting, while openwork cage cups were carved from thick blanks. Gold glass, in which gold leaf carved into patterns or figures was placed between layers of transparent glass, appears to be an early Hellenistic innovation. Lenses are known from the Bronze Age onwards, but they remained a craftsman's (engraver's) tool and are not mentioned in any theoretical treatise on optics. By the 5th century BC they were being employed also as burning mirrors. Glass was used in addition for reflecting mirrors (sporadically from *c.*600 BC as cosmetic aids and later both for signalling and in lighthouses), for lamps (from the Hellenistic period), in small panes for windows, and in sheets cut into tesserae for mosaics (both from the Roman period). Stained glass was developed, if not perhaps invented, by the Byzantines.

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See also **Glass; Metalwork; Pottery; Siegecraft; Textiles; Water Management**

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TEXTILES

Textiles are highly perishable and rarely survive the ravages of time. Our knowledge of them comes from a variety of sources, including archaeological finds, pictorial representations, and written sources.

In the Near East the use of flax to make linen cloth predates silk, cotton, and the domestication of sheep for wool by several millennia. The oldest textile in the world, a woven linen fabric adhering to a tool excavated at Cayonu in southeastern Turkey in 1993, is dated to about 7000 BC; wool did not appear in the Balkans until about 3500 BC.

The history of textiles in Greece begins in early Minoan Crete (*c.*2300 BC) where excavations at the prehistoric village of Myrtos turned up the first evidence for cloth production: sheep bones, tubs for washing wool, bowls for wetting linen thread, and clay spindle whorls. These finds indicate that the Minoans knew how to spin both flax and wool. Remnants of cloth from other sites in Bronze Age Greece and Turkey reveal the human penchant for decorating cloth. At Troy, for example, Schliemann found a linen textile embellished with tiny blue-green faience beads from *c.*2600 BC.

Evidence from later Minoan Crete and Mycenae (1600–1150 BC) tells the story of a flourishing textile industry. The men tended flocks of sheep in the countryside; women spun yarn and wove cloth in the palaces. The sheep were caught and plucked, because shears had not yet been invented to cut the wool from the sheep's back. Early breeds of sheep moulted fine wool from their coats, leaving the bristly kemp hairs, which moulted later. The wool was brought to the palace and weighed, then distributed for cleaning, combing, and spinning. The oils and fats were removed from the wool and retained for use in perfumes and ointments. Spinners worked in groups; weavers worked in pairs. Greek women did not spin on wheels, but on spindles. The spinner held the fibre-laden distaff in her right hand; from this she drew out the fibre and twisted it into thread with the aid of a spindle weighted with a whorl. Large numbers of ancient spindles and whorls have been found in archaeological digs.

The warp-weighted loom, for which ancient Greece is well known in textile history, was apparently already in use among Mycenaean weavers around 1400 BC. The Linear B script lists "cloth with white edges" or "cloth with coloured edges", indicating the use of starting bands typical for weaving on warp-weighted looms. (The starting bands were made by specialists who wove on small band looms.) These bands stabilized the warps which were suspended from a horizontal bar on vertical supports. The warps were anchored at the lower end with clay weights. A shed rod divided the warps, half in front, half at the back. The rear warps were attached to a heddle rod which, when lifted, created a shed through which the weft was inserted. The weft was beaten upwards, towards the horizontal bar, with a sword-like shuttle. Herodotus wrote of "pushing the woof [weft] upwards". Generally the looms were no taller than the weaver's reach, although one depiction of a warp-weighted loom shows the weavers wearing platform shoes to gain height. With warp-weighted looms, the length of the cloth was limited to the height of the loom. However, the loom allowed the manufacture of wide cloth with three finished edges.

Minoan artwork depicts elaborately patterned and coloured textiles, implying advanced weaving skills and a knowledge of dyeing. Patterns include rosettes, grids of tiny diamonds, and spirals. Such patterns could have been embroidered, painted, or woven. Wool, the most common fibre, was easy to dye. The known dyestuffs included two classes of dyes, direct and vat. Direct dyes, unlike vat dyes, required the addition of a mordant, probably alum, to fix the dye to the fibre. Minoans and Greeks used direct dyes such as madder roots and scale insects called kermes to obtain reds; saffron lilies yielded yellow. Woad and murex shells were the two main vat dyes, the former yielding blue, the latter purple. The Minoans may have exported their patterned textiles to Egypt where, according to Barber (1991), they were copied and used for canopies and banners.

Textile making was women's work in Greece. Homer's *Iliad* and *Odyssey* suggest that weaving was a task fit for queens in Mycenae and Troy. While living in Troy, Helen wove "a purple double-layered cloak" depicting the struggles of the Trojans and Achaeans. Odysseus' wife Penelope spent three years weaving a complicated pictorial cloth by day, unravelling it at night in an attempt to dissuade suitors who believed her long-absent husband was dead. Women were so important to the Mycenaean textile industry that raiding soldiers captured them to weave as captive labourers. So many were brought to Mycenae that they most likely made textiles for export. In Classical Greece women of all ranks spun and wove. Mastery of such household tasks signified a virtuous female. A 6th-century BC vase in the Metropolitan Museum of Art in New York shows women participating in all phases of textile work from weighing

the wool fibre to folding the finished cloth. Woven textiles were used for clothing, bedding, hangings, cushions, towels, banners, burial shrouds, and sails. Greek women were proficient at other textile techniques besides weaving, including a type of knotless netting called "sprang". Vase paintings show women working with small frames to make elastic-like fabrics, probably for hairnets.

Only a few textile fragments survive from Classical Greece. The royal tomb at Vergina in Macedonia, believed to be the final resting place of Philip II of Macedon, father of Alexander the Great, contained a fragment of a purple cloth embroidered with gold. A funerary urn from Koropi, near Athens, held a fragment of linen embroidered in gilt silver in a diaper pattern with small lions in the centre of each lozenge. Several specimens unearthed in a Greek colony in the Crimea comprise tapestry-woven, embroidered, painted, or resist-dyed textiles incorporating either scenes from Greek mythology or geometric motifs.

Cotton, hemp, and silk appeared by the 5th century BC, attesting to the extensive trade networks developed by the Greeks. Cotton originated on the Indian subcontinent, hemp in northern Europe, and silk in China. Several purple and white silk textiles found in a late 5th-century BC tomb in Athens raise questions about when silk arrived in Greece. Silk is the only filament-length fibre in nature, and silk fabrics were thus prized for their smooth, lustrous surfaces. China, Korea, and Japan kept knowledge of sericulture, the raising of silkworms for fibre, a closely guarded secret while exporting both fibre and finished fabrics to the Mediterranean world. Although wild silk was known in the Classical era, was not until trade routes were developed across Asia that cultivated silk was brought to Greece and Rome during the Hellenistic period. According to legend, around AD 550 two Byzantine monks smuggled silkworm eggs and mulberry leaves out of China and presented them to the emperor Justinian, who subsequently established the cultivation of silk in Byzantium.

During the Graeco-Roman period an important technical change occurred. Around the 4th century AD weavers began to work on horizontal looms that had two rigid bars, one for warp and the other for finished cloth. This loom allowed for longer, but narrower fabrics. The transition from vertical, warp-weighted looms to two-bar horizontal looms can be seen in the changing construction of numerous tunics that survive from Coptic Christian burials in Egypt (3rd to 12th centuries AD). These tunics were made of undyed linen with tapestry sections of dyed wool.

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See also **Dress; Purple; Silk**

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THASOS

Island in the north Aegean

Thasos is the most northerly of all the Aegean islands, lying only some 7 km from the Thracian coastline of northern Greece, where the mouth of the Nestos river forms a low promontory. Its ties with the mainland were always close, and it is today governed from the port town of Kavalla. The mountainous interior of Thasos, rising to more than 1100 m, is thickly wooded, and the whole island has an area of just under 400 sq km. Its rich endowment with mineral wealth has been a source of contention throughout its history: from its mines of gold, silver, and marble that were particularly famous in antiquity, to the substantial installation of a German mineral mining and exporting complex at Limenaria still in operation after World War II, to offshore oil deposits discovered in 1974, the natural mineral endowments of the island have shaped its history.

Both Herodotus (6.47) and Pausanias (5.25) claimed that the first people to occupy Thasos were Phoenicians, traditionally led by Thasos, son of Poseidon, but archaeological evidence has not supported this, and Parian settlers were in occupation by the early 7th century BC. The wealth that they accumulated, deriving from the island's gold mines, was the cause of the island twice being attacked during the 5th century BC, by a tyrant of Miletus and, in 463 BC, by Athens. Herodotus wrote that he had seen the mines "where a huge mountain has been overturned in the search for *metalla*". In 340 BC Philip II of Macedon occupied Thasos, and it remained in Macedonian hands until the Romans took over the island in 196 BC.

Thasos was the birthplace of several personalities of cultural importance in antiquity: the 8th- to 7th-century BC poet Archilochus was among the colonists from Paros; the 5th-century BC rhapsodist and historian Stesimbrotus was a native of the island, as was also the famous athlete Theogenes. But the most famous of all the natives of Thasos was Polygnotus, who was to be numbered among the most distinguished of all Classical Greek painters. Pliny (*Naturalis Historia*, 35.58) described how he was the first artist to "represent the mouth as open, showing the teeth, and relaxing the rigidity which had been usual before", and he also introduced the painting of women in transparent drapery. Descriptions of his paintings, by Pausanias and other writers, which could be seen all over the Greek world, provide ample evidence of his fame.

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THEATRES

The rituals of Classical Greek religion involved, above all, the observation by worshippers of actions performed for the gods. In addition to the crucial sacrifices at an altar, there were athletic activities, and the singing and dancing of choral odes, normally as part of a contest. Evidence for this survives from a wide variety of city states; even at Sparta choruses of young maidens danced and sang odes composed for them by poets of the highest calibre, a marked contrast to the superficially dour impression that is attached to that state. The area in which this activity took place formed part of the sanctuary of the god to whom it was dedicated, and in most instances no more was required than a space, usually circular, on which the dancers could perform their movements of turn and counterturn, and round about this, space from which the spectator-worshippers could observe the ritual.

It was out of this that the Greek theatre developed. Drama formed an elaboration of the choral ode, by the separating out of individual characters, performed by actors, from the body of the chorus. This did not happen in all the city states, and is most clearly associated with Athens; the plays whose texts survive were all written for performance at the religious dramatic festivals of Dionysus there. Nevertheless theatres form an extensive and widespread category of building, whatever precisely the type of production that took place in them. The form, however, is best understood in relation to the development of drama as we perceive it from the Athenian examples.

The principal theatre of Classical Athens is situated on the south side of the Acropolis, in the sanctuary dedicated to Dionysus. The circular dancing floor for the chorus was placed between the small temple and the lower slopes of the Acropolis itself, which provide a most suitable area for viewing. The architectural elaboration of this into a developed theatre was protracted in time, and the earliest phases are inextricably obscured by the later, more permanent forms. Though the chorus remained an essential element in 5th-century BC drama, the separating out of actors would have required a distinct area for their performance, which we know took place in front of a structure that provided the setting. Much later accounts (in Vitruvius) talk of actual scenery and scene painting, but this may be something of an anachronism. There are, however, ample references to what are translated as stage buildings, the *skenai*, which may at first have been temporary. In the front of this (usually referred to by the Latin *scenae frons*) were doors through which actors emerged or disappeared. The convention seems to have been a single, central door for tragedy (which might serve, for example, as the palace of Agamemnon or the cave of Polyphemus), and probably three doors for comedy. These gave on to a stage, the height of which above the level of the dancing floor (the orchestra), failing the survival of material evidence from the 5th century BC, is perennially disputed by modern scholars. Actors, particularly those taking the role of messengers, could also come on to the stage from either side without going through the stage building. Within that structure there was provision for ancillary apparatus, particularly the "machine" (*mechane*) used for the sudden appearance of deities (hence the "god from the machine", the *deus ex machina*) which often brought to an end the otherwise insoluble dilemmas created in the plays of Euripides. In Athens in the 5th century BC the auditorium was provided with wooden seating, presumably removable, which seems to have been arranged in a polygonal rather than curved plan.

Everything became more durable in the 4th century BC. The size of the auditorium was enhanced by extensions from the natural slope on terraces supported by massive end walls. Permanent stone seating was placed on this, a development attributed to the statesman Lycurgus, in 346 BC, and the stage building was also translated into stone. This general arrangement is now found in other places, and culminates in the construction of the great theatre at Epidaurus. This was begun, probably, in the 330s BC, though development was slow, and work was still being carried out in the following century. There is a large circular orchestra, with a stage building behind, the details of which unfortunately are lost, only the foundations surviving. The seating is on a natural hillside, extended out with terraces on support walls and in plan occupying more than a semicircle. The rows of seats are divided into "wedges" by stairs. Twelve wedges form a semicircle, with a further wedge each side to the terrace walls. There is a middle walkway dividing the seating into lower and upper sections, the upper being possibly an addition to the original plan; here each wedge is further subdivided by an additional stairway, but with only a half-wedge beyond the semicircle. The resulting acoustic qualities are superb, as can be attested in modern performances, although such qualities are more a natural consequence of the layout than the result of deliberate planning. Though small roofed auditoria (*odeia*) were built specifically for musical performances, theatres remained essentially open-air, and so could accommodate large numbers. Epidaurus holds more than 10,000, and this is not unusual. Some later theatres, such as those at Ephesus, Miletus, and Pergamum, are even larger.

There is an interesting theatre of *c.*300 BC at Sicyon, where access to the auditorium was facilitated by two tunnels under the upper section of seating, leading to the walkway dividing the upper from the lower area. These were roofed with tunnel vaults, indicating a Macedonian design and the work of Demetrius Poliorcetes, who ruled over a reduced kingdom here following the defeat and death of his father at the Battle of Ipsus in 301 BC. In Macedon itself there had been a theatre a century earlier, for king Archelaus, who had enticed Euripides to his court, but the surviving theatre at Aegae has only the lowest row of seats in stone, the remainder being wooden on an earth bank. This was the scene of the great wedding procession in which Philip II was murdered. This procession demonstrates how theatres were used for activities that were not, in themselves, dramatic in character. Theatres also served as meeting places for political assemblies, and there is evidence for such use even at the theatre of Dionysus in Athens.

The best-preserved stage building is that of the theatre at Priene in Ionia, which is probably 2nd century BC in date. The

stage platform is raised high above the orchestra level, and has in front a row of engaged Doric half-columns, with openings between. Behind the stage the *skene* rose for another storey, with the traditional doorways. Such a stage separated the actors from the chorus, and presumably reflects a decline in the importance of the chorus, which can be seen clearly in the Athenian comedies by Menander of the late 4th century BC. Even so, as well as these plays, the Athenian drama of the 5th century BC was still performed; a guild of professional actors, the "tradesmen of Dionysus", based in the Ionian city of Teos, seems to have gone on tour with such productions, and every self-respecting Greek city now required a theatre for them.

This continued after the Greek cities were assimilated into the Roman empire. It is possible to distinguish Greek from Roman theatres by the later truncation of the auditorium to a strict semicircle, and linking its ends to a high *scaenae frons*, usually with two or three storeys of attached columnar decoration framing the traditional three doors. Such theatres were built in Rome itself and the western provinces, but those in the Greek areas usually kept enough space for the choruses, even if one suspects that they were not always used solely for revivals of classical drama. But the distinction is primarily a chronological one, and the semicircular plan was evolving already in late Hellenistic theatres. Improved Roman construction methods, particularly vaulting techniques, made it simpler to build theatres on flat ground, though if a suitable hillside was available it would be used; even in the 4th century BC Greek architects could build auditoria with seats resting entirely on artificial terraces, as at Mantinea and Eretria.

By the time of the Roman empire the religious significance of the theatres had largely passed. In the troubled times of the late empire theatres were often incorporated, by virtue of their massiveness, into fortifications. In Byzantine times plays were still written, but as literary exercises, rather than for performance. Theatrical performances in the Greek world continued only with the travelling players who still entertained in villages even in the early years of the 20th century, though without dedicated buildings. The new theatres of independent Greece, like the splendid example at Piraeus, were based rather on western and specifically Italian models.

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See also **Comedy; Satyr Play; Tragedy**

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THEBES

City in Boeotia

Thebes was the capital of Boeotia, set in its eastern basin with an area of some 12,400 sq km. Centrally located within this basin, Thebes commands the large, fertile Aonian plain to the north, and is near the Asopus valley to the south. The Teneric plain lies only some 7 km to the west. The area is also blessed with ample springs, rivulets, and rivers. Hence Thebes controlled a large, cohesive area of rich, arable land, which meant that it could easily extend its power throughout Boeotia. The city also enjoyed access to the Aegean by way of Aulis. Thebes itself was likewise endowed with a constant, dependable supply of good water. The acropolis of Thebes was the Cadmea, a plateau that rises gently from north to south, reaching a height of 63 m. It has always been the principal site of inhabitation.

Thebes did not become a major city until the Mycenaean period (*c.*1600–1250 BC). Archaeology has revealed two palaces, other buildings, and walls pierced by the famous seven gates of Thebes. The Mycenaean city appears early in the realm of Greek legend. Some ancient traditions attribute its founding to the Phoenician Cadmus, but other legends tell of founders who preceded him. No modern evidence supports the Cadmus legend: even though Cadmus gave his name to the citadel, the settlement was purely Greek.

Thebes entered the historical era in the Archaic period (*c.*600–500 BC). The city grew until it spread its influence abroad in Boeotia. By the middle of the 6th century BC it had helped to forge a loose confederation that was originally a religious amphictyony, marked by a festival in honour of Poseidon. The confederacy gradually served as the inspiration for political unity, and as such its members repulsed a Thessalian attack around 520 BC. Succeeding it was a rejuvenated league that came into conflict with Athens, an enmity that became traditional. These events show a clear and growing Theban policy that sought to strengthen the confederacy and to oppose Athenian ambitions in the region.

The bleakest moment in Theban history occurred when the city sided with the invader during the Persian Wars. Although in 480 BC Thebes defended Thermopylae against the Persians, the other Greeks suspected it of harbouring Persian sympathies. Abandoned by its allies after the loss of Thermopylae, Thebes fought with the Persians against the Greeks at Plataea in 479 BC. Thereafter, Thebes was branded as a traitor to the Greek cause. Following the Greek victory, it fell to a successful siege, but the rest of Boeotia was spared. The aftermath of the defeat was an eclipse of Theban power and authority. The confederacy survived, but only in 457 BC did Sparta strengthen Thebes by making an alliance with it, reaffirming its hegemony of the confederacy, and enlarging its circuit wall. Seeing these developments as a threat, Athens immediately attacked Boeotia, only to be repulsed by Sparta and Thebes at Tanagra. Later that year Athens struck again, routed Thebes at the battle of Oenophyta, and overran Boeotia. The unpopularity of Athenian rule prompted a successful rebellion in 447 BC that resulted in a Boeotian victory at the Battle of Coronea and the expulsion of the enemy from Boeotia. The victory led the major cities of Boeotia to create a new confederacy that conducted all federal business. It was the most innovative, comprehensive, and

successful federal government of the Classical period, and helped to make Boeotia a major power in Greece.

Thebes played a disreputable role at the outbreak of the Peloponnesian War, attacking Plataea before the formal beginning of hostilites. Ally and enemy alike considered Thebes guilty of having violated the yet unbroken peace. Nevertheless, in 424 BC Thebes defeated a major Athenian army at the Battle of Delium, and afterwards contributed significantly to the ultimate defeat of Athens. Victory in 404 BC brought the submission of Athens and strife with Sparta: Sparta insisted on a hard but fair peace with the vanquished; Thebes, on the contrary, demanded the complete destruction of Athens. It also unsuccessfully demanded from Sparta a tenth part of the spoils of war. Thebes thenceforth displayed coldness to Sparta and warmth to Athens. Antagonism gave way to open hostilities during the Corinthian War (395–386 BC). With the encouragement of the Persians, Thebes banded together with Athens, Argos, and Corinth to overthrow Spartan power in Greece. Fighting was at first fierce, with Thebes and its allies defeating Sparta at the Battles of Haliartus (395 BC) and Coronea (394 BC) and holding their own at the Battle of the Nemea River (394 BC). The war thereafter dragged on until Sparta, with vast Persian support, forced its enemies to accept peace. The King's Peace of 386 BC dismantled the Boeotian Confederacy and weakened Thebes.

Not content with humbling Thebes, Sparta sought to enfeeble it. In 382 BC a Spartan army seized Thebes in time of peace, and held it with a garrison. After four years of military occupation the Thebans overthrew the Spartans and rebuilt the confederacy. In 371 BC Thebes, under its two brilliant generals Epaminondas and Pelopidas, annihilated the Spartan army at Leuctra, thus inaugurating the era of the Theban hegemony, a decade when Thebes stood at the pinnacle of Greek politics. During that time it destroyed Sparta as a major power, frequently invaded the Peloponnese, and spread its influence northwards to Thessaly and Macedonia. In 366 BC Thebes won the friendship of the Persian empire. After a fruitless attempt to win naval superiority, Epaminondas made one last effort to reassert control over an unruly Peloponnese, but failed. At the battle of Mantinea in 362 BC Thebes won the victory but lost Epaminondas. That victory, ironically, ended the hegemony.

If the years after the Theban hegemony were anticlimatic, they were nonetheless eventful. In 355 BC Thebes came to the defence of the sanctuary of Pythian Apollo at Delphi. Seized by a band of Phocians whom the Amphictyons had found guilty of sacrilege, the shrine was militarily occupied and systematically plundered. Thebes and many other Amphictyons struggled to liberate Delphi from the Phocian temple robbers in a conflict known as the Sacred War (355–346 BC). Exhausted after years of unavailing warfare, Thebes and Thessaly turned to Philip II, king of Macedon, for succour. Together with the Amphictyons, Philip freed Delphi in 346 BC. His triumph propelled him to prominence throughout the Greek world, on the heels of which came a conflict with Athens that drew him further south to confront his enemy. Thebes and a few other Greek states now saw Philip as a threat to Greek freedom. In 338 BC Thebes, Athens, and some other allies suffered disaster at the Battle of Chaeronea. In its heroic resistance to this threat from the north, Thebes redeemed itself for having earlier sided with the Persians.

Chaeronea marked the end of Thebes' greatest days. In their place came a long period of twilight. Under the Macedonian kings it was generally at the mercy of greater powers. In 335 BC Alexander the Great punished a rebellious Thebes by utterly destroying it. Rebuilt in 316 BC by the Macedonian king Cassander, the city fell to Demetrius Poliorcetes in 290 BC. From 315 to 86 BC the fortunes of the city changed with those of Hellenistic and Roman commanders. Thebes and Boeotia alike suffered years of decline and decadence. The worst came in 86 BC, when the Roman Sulla reduced it to little more than a village.

Thebes has left a rich legacy. From the realm of legend come Heracles, Cadmus, Oedipus, the cycle of the Seven against Thebes, Antigone, and Tiresias. Indeed, Athenian drama would have been much the poorer without the seven-gated city. Pindar and Corinna wrote exquisite poetry, and Pindar's sophisticated verses are masterpieces of metre, variety, and content. In the Middle Ages Thebes became a steadfast seat of Chrstianity, a fundamental ingredient in the heritage of modern Greece and the world at large.

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See also **Boeotia**

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THEMISTOCLES *c.*525–459 BC

Athenian statesman

Themistocles first appears in our sources as archon of Athens for 493/92 BC, when he began fortifying the Piraeus, as a much superior replacement for Athens' former harbour at Phaleron. This first appearance exemplifies the central preoccupation of his career, that Athens should become a great naval power. It also exemplifies the legendary intelligence that all the sources emphasize. Similarly, in 483 BC, when a rich seam of silver was discovered at Laurium, he urged that it be used not for the short-term individual gain of the citizens, but to augment the Athenian fleet, which then numbered only 50, but would number 180 at Salamis. Whether Athens' ongoing dispute with Aegina or rumours of a Persian invasion were his focus, his policy was directly responsible both for Greece's unexpected victory against Persia and the thalassocracy on which the Athenian empire was based.

The climax of Themistocles' Greek career was his performance as commander of the Greek fleet at Salamis in 480 BC.

Aeschylus himself fought at this battle, and his *Persians* and Herodotus are our most contemporary sources for what happened. Though there are different emphases in each, they agree that Themistocles forced the battle – in Herodotus, against the will of the Peloponnesians - by sending word to Xerxes that the Greeks were planning to retreat by night: Xerxes blocked off the escape routes and the Greeks and Persians were forced to fight. Themistocles' motives and the exact details of what happened are disputed, but his plan enabled the Greeks to fight in narrow waters, which were advantageous to them, but detrimental to the Persians, because of their superior numbers. It was widely acknowledged in Athens that the Battle of Salamis was decisive in saving Greece, and in Simonides' poem on the battle Themistocles' wisdom was especially praised. A sanctuary of Artemis and a trophy for the victory on Salamis were discovered in the 19th century, though little is visible today.

Themistocles foresaw that Athens' new prestige and power would eventually damage its relations with Sparta. When the Athenians began to rebuild their ruined city, and the Spartans suggested that refortification was unnecessary, Themistocles outmanoeuvred them as he had outmanoeuvred Xerxes. Ordering the Athenians to finish the rebuilding as quickly as possible, he went to Sparta, allegedly to discuss the issue there. By delaying and making excuses, he kept Sparta uncertain of what was happening in Athens until it was too late and the fortifications were established: Athens' credit was too good in Greece for the Spartans to complain openly, but they were not pleased, and this is an early sign of the tensions that would ultimately lead to the Peloponnesian War.

In the spring of 478 BC Themistocles returned to the fortification of the Piraeus that he had begun in his archonship. Although events ultimately proved the wisdom of his plan, in the short term the decision worked against him. While Cimon and Aristides pursued glamorous foreign campaigns of revenge against Persia, Themistocles presided over the valuable but dreary and exhausting work of fortification at home. His desire for continuous expressions of gratitude for his services at Salamis also harmed him among the people, who became resentful, especially when he constructed a temple of Artemis of the Best Advice (Aristoboule) which contained his own statue. One of his supporters, however, may have been Aeschylus, whose *Persians*, performed in 472 BC, is sometimes interpreted as an attempt to remind Athens of Themistocles' services at a time when he was unpopular, although only a few lines concern him and he is never actually named. At any rate, Aeschylus was not enough to save him and, perhaps in 471 BC, he was ostracized. In fact, ostraca dating back to the mid-480s BC indicate that he had always had many enemies, and it is surprising that he had managed to avoid ostracism for so long.

He went to Argos, and it may be significant that Elis and Mantinea acquired democratic governments at this time. If he was stirring up democratic anti-Spartan feeling in the Peloponnese, it is not surprising that the Spartans wanted his removal. An opportunity presented itself when they put to death their own general Pausanias under suspicion of treason with Persia. Letters were allegedly found that implicated Themistocles, but before he could be arrested, he fled to Corfu. A strongly romanticizing strain, which seduced even Thucydides, colours the rest of his story: it probably derives from Themistocles himself and his descendants. Thucydides tells a stirring tale of hair's breadth escapes from capture, as Themistocles' ship was carried by a storm straight into the Athenian fleet besieging Naxos, until he finally landed in Persia, where he seems to have lived a life of obscurity for several years before approaching the Persian king. The dating for this part of his career is uncertain, for the obvious reason that his actions had to be so clandestine.

Later accounts describe his meeting with Xerxes' successor Artaxerxes, in which he won him over. Themistocles reminded the king that he had persuaded the Greeks not to break the bridges that had conveyed the Persians into Europe, thereby saving Xerxes. The story is told first in Herodotus, who interprets it – implausibly – as a sign that Themistocles was already planning to defect after Salamis, and the story may derive from Themistocles' own fertile imagination. Tradition recounts that he learned Persian in a year and became a friend and adviser to the king, who gave him control of several towns, including Magnesia. He settled there happily, keeping up with his origins by introducing Athenian festivals into Magnesia, and issuing his own coinage on the Attic standard, of which some examples are extant. Aristophanes already knew of a tradition in which Themistocles committed suicide by drinking bulls' blood when the king insisted that he should repay his kindness by leading an expedition against Greece: this too may come from Themistoclean sources, eager to erase any stain of disloyalty to Greece, and a natural death is more likely. For his descendants, honours were maintained in Magnesia even down to the time of Plutarch. It is likely that Themistocles' relatives eventually brought his body back to Athens: monuments to him in both Magnesia and Attica are recorded.

Though quite abundant, all accounts of Themistocles are shaped by the strong reactions, both positive and negative, that he elicited from his fellows. In Herodotus his greed and deception predominate, though his services to Greece are also acknowledged; for Aeschylus and Thucydides his "deceit" is cleverness, and Thucydides may deliberately have rehabilitated a man whose outstanding intelligence he regarded as equal only to that of Pericles. The life of Themistocles, with its exceptional triumphs and reverses, generated tremendous interest in later tradition. Some information on his life is historically valuable, though much is also of a purely anecdotal variety: strands of both types are clearly evident in Plutarch's *Life*. Because of his part in building the Athenian navy, he is regarded as Pericles' forerunner as a democrat, and sources tend to speak well or ill of him according to their judgements of democracy. Among philosophers, his character was a favourite test case on the relative roles of nature and nurture in creating intelligence, and rhetorical schools used incidents from his thrilling life as material for debates: these factors exacerbated the tendency for traditions to be embroidered even more as time went on, even to the extent of the forgery, probably in the late 1st or 2nd century AD, of 21 letters, allegedly written by Themistocles to friends from various stops along his escape route.

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THEOCRITUS

Poet of the 3rd century BC

Theocritus lived and worked in the first half of the 3rd century BC. A native of Syracuse, he was probably also active in Cos and in Alexandria under Ptolemy II Philadelphus. This peripatetic poetic career may be considered as characteristic of a period in which old loyalties to individual cities were eroded under the larger governmental units that were their successors. Theocritus is typical of his time also in his movement away from the older literary forms native to the Greek polis, such as epic and drama, and for his preference instead for creating new combinations within traditional genres out of his intimate knowledge of the Greek literary heritage, and mixing "high" and "low" literary forms, to create new poetic blends designed to appeal to a highly sophisticated audience.

Theocritus is best known for bucolic poetry, whose setting is the countryside and whose subject matter is herdsmen, their animals, their loves, and above all their songs. The countryside is highly idealized: specific indications of places and times are generally ignored in favour of timeless scenes that emphasize the abundance and beauty of the countryside, the sensual pleasures of its colours, smells, and sights, and the leisurely lives of the herdsmen. Theocritus likes to contrast the world of nature and simplicity with a larger world of civilization beyond it. His herdsmen partake of both worlds, being simultaneously portrayed with amusement as representatives of rustic simplicity, yet also admired as artists and creators of exceptional poetry. Thus his portrayal of them is never consistent and somewhat detached, and the tone of the poems moves constantly between the realistic and the idealized. This shift is also reflected in their form and language. Theocritus writes in Doric, but not the Doric actually spoken by Sicilian herdsmen, but a stylized mixture of contemporary and poetic forms, and while an occasional bawdiness colours the poems to give some illusion of reality, mostly he prefers a formal elegance and motifs that look unceasingly to his great predecessors for their inspiration. Although superficially his thought seems straightforward, with only occasional ventures into symbolism or obscure myths, these poems of simple country life are as much a product of Alexandrian literary taste as the more obviously learned poetry of Theocritus' library-dwelling contemporary Callimachus.

The relation of Theocritus' bucolic poetry to contemporary practice in the countryside is unclear, but the repetitions and use of refrains that are such a notable stylistic feature in his poems are attested in other traditions of pastoral poetry. Furthermore, the singing contests of which he writes still exist – in a less self-consciously literary form – in modern-day Sicily, Crete, and Rhodes, and the capping of stanzas, the use of phonological and syntactical parallelisms, and the general spirit of display and mockery that Theocritus' herdsmen exhibit all feature in modern songs of this type. In ancient tradition there is also a consistent association of shepherds and herdsmen with music making, as is seen in the biographical traditions attached to Archilochus and Hesiod. Theocritus may possibly have been the first poet to make higher literature from traditions of popular song. If so, he is again typical of his time, since the high poetry of the Hellenistic age tended to rework elements from popular culture into new, literary modes.

Theocritus is best remembered for his poems of country life, largely because, via Virgil's adaptations of them in the *Eclogues*, they influenced later European pastoral poetry so strongly, but his extant corpus extends beyond these in subject matter, tone, and dialect. He addressed poems to the great men of the day, such as Hieron II of Syracuse, from whom he may, probably unsuccessfully, have hoped for patronage, and to Ptolemy II Philadelphus (who may have been more generous). Some poems are set in the city, such as poem 2, which is a monologue by a young woman using magic to retrieve her errant lover, and 15, a dramatic dialogue of two women in Alexandria and their day out at the festival of Adonis. The amusing realism of this poem and its interest in the lives of ordinary people reflect general tendencies in Hellenistic literature and art. These poems have an antecedent in the work of Sophron, a writer of mimes of the 5th century BC, a "low", but popular, genre of entertainment, and a parallel in the rather earthier mimes of Theocritus' contemporary Herodas.

Other poems are written in epic dialect, or in a mixture of epic and Doric, and Theocritus even seems to have imitated the Lesbian of Alcaeus and Sappho. Twenty-seven epigrams are preserved under his name, as is the novelty poem "Syrinx" written in the shape of panpipes. In his handling of epic themes, such as stories of Heracles and the Dioscuri, he shows the normal tendencies of this time to retell lesser-known stories in a domesticizing, small-scale style. His treatments of the myths of Heracles and Hylas and of the Dioscuri may be compared with those of Apollonius, which, by contrast, are in a more traditional epicizing mode. It would appear from these and other evidence that Theocritus was a devotee of Callimachus' small-scale aesthetic, rather than that of Apollonius.

At least one Theocritean poem, the *Berenice*, has not been preserved, while several poems transmitted in the Theocritean corpus are the work of later imitators. Little bucolic poetry between Theocritus and Virgil survives, but Moschus in the mid-2nd century BC and Bion, *c.*50 years later, show a strong Theocritean influence. The first ancient collection of Theocritus was gathered by Artemidorus of Tarsus (1st century BC), and from the writings of Lucian, Longus, and others it is clear that bucolic poetry remained popular in the next century. Our papyri range from the 1st to the 7th centuries AD. A maintenance or revival of interest in bucolic is evident in the 4th to 6th centuries in the poems of Quintus, Nonnus, Tryphiodorus, and epigrammatists, some Christian writers, and also in the numerous papyri datable to the 5th century AD. To the pastoral renaissance in the Greek world from the 12th century on we owe a large number of Theocritean manuscripts – nearly 180 in all – and Byzantine scholars such as Planudes, Moschopoulos,

Triklinios, and probably Tzetzes all wrote commentaries on his poems.

Although Theocritus' secure place in the Byzantine canon has ensured that relatively substantial remains of his work have come down to us, the Byzantine enthusiasm for Attic Greek has wreaked havoc with Theocritus' Doric forms, and has caused problems for modern editors trying to restore his original language. Throughout the 15th century Byzantine manuscripts came to Italy and Theocritus was one of the first Greek poets to be produced in printed form, in Milan *c.*1480. More people continued to read translations of Theocritus than the original, however, and he has been translated into many languages throughout Europe, including modern Greek. No other Greek author was as often and as successfully imitated as Theocritus, but his influence on western literature is primarily through Virgil whose Latin was more accessible to many more people than Theocritus' Greek.

SOPHIE MILLS

See also **Poetry (Lyric)**

Biography

A native of Syracuse, Theocritus was active in Cos and Alexandria in the 270s BC. He is famous for his bucolic poetry, which was the model for Virgil's *Eclogues*; but he also wrote mimes, epigrams, and minor epics. He was much read in Byzantium and has been translated into many modern languages.

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THEOPHRASTUS *c.*371–*c.*287 BC

Philosopher

Theophrastus succeeded Aristotle as the head of the Lyceum in Athens. More than 200 works are attributed to him. Allowing for duplications because of confused titles and some works that are excerpted from larger ones, the volume of his writings spanning numerous subjects is enormous. Diogenes Laertius wrote Theophrastus' biography and related the testimony of numerous later authors who preserved quotations from lost works. Only a few of his works survived intact. Theophrastus' influence is measured in differing ways: the accomplishments of his students; the indirect influence through intermediary writers who summarized his ideas; the knowledge in his scientific works on mineralogy and botany; and his writings on philosophy and religion.

Among the 2,000 students taught by Theophrastus were Strato of Lampsacus (physics), Erasistratus (physiology), Demetrius of Phalerum (librarian at Alexandria), and Arcesilaus (philosophy). In the turmoil of Athens in the 320s and 310s BC, the works of Aristotle and Theophrastus did not circulate widely. In the arrangement of Aristotle's works by Andronicus of Rhodes (*c.*70 BC), some of Aristotle's writings may have been confused with Theophrastus' in what is now called the *Corpus Peripateticum.* At the very least, during the Middle Ages a number of small works and fragments of larger works circulated under Theophrastus' name, some of which are not now regarded as genuine. Conversely some works attributed to Aristotle (e.g. *On Colours* and *On Sounds*) were probably written by one or more of Aristotle's or Theophrastus' students or by Theophrastus himself.

While accepting most of Aristotle's ideas, Theophrastus broke with his mentor in a number of ways important in later Hellenistic, Islamic, and Christian theology and natural philosophy. He challenged Aristotle's notion that to all things nature imparted a final cause, a direction towards which action takes place. Theophrastus said that nature does many things "at random" and that there is no discernible purpose for such things as the tides, breasts on men, and horns on deer. He also raised doubts about fire as an element: it alone generates and destroys itself; there are numerous ways in which it is born; it requires a substratum (something to burn); thereby, it cannot exist by itself. On motion, Theophrastus questioned why, if there was one mover (*primum mobile*), all heavenly bodies did not have similar motions; if such bodies have a desire for circular motion, does that not imply a soul in them?

Theophrastus' major surviving works now regarded as genuine are: the *Enquiry into Plants* (*Historia Plantarum*, 9 books: morphology, classification, habitats, uses including medicinal); *Plant Explanations* (6 books: generation, propagation, environmental factors including cultivation, seeds, degeneration, juices); *Minerals* (2 books: formation and differences among minerals and stones such as by visual and tactile qualties); *Metaphysics* (1 book which questioned some of Aristotle's ideas but was published in Aristotle's works); *Characters* (1 book: 30 profiles of personality types); and short works: *Odours*, *Meteorology* (preserved only in Syriac and Arabic), and *Senses* (in manuscript with Aristotle's treatises).

Theophrastus' importance is perhaps greater because of his influence on other writers than because of the direct knowledge from his surviving treatises. Some patristic writers knew him and, especially, Jerome quoted Theophrastus' work on *Marriage*, but he disapproved of Theophrastus' negative opinion, and Chaucer's Wife of Bath agreed with Jerome. Strangely, Theophrastus was less influential on Byzantine writers than on those in Arabic and later Latin. Eustathios referred to *Characters*

and Michael of Ephesus knew of several of his works. Cicero said that Theophrastus placed more emphasis than Aristotle on the importance of fortune and wordly goods. Arabic writers knew of Theophrastus' philosophy and discourses on botany and minerals. In the west Theophrastus' works on minerals had indirect influence on lapidaries. The biggest impact came in the 15th and 16th centuries when a rediscovery of Theophrastus began with Lupus Castilliunculus's translation of *Characters* (*c.*1430s) and Theodore Gaza's rendering of the botanical works (1453/54). The fields of botany (including pharmaceutical uses) and minerals were the centres of Theophrastus' considerable impact on the Latin Renaissance. Appropriately the first printed edition, by Aldine (Venice, 1497) combined both Aristotle's and Theophrastus' works.

JOHN M. RIDDLE

See also **Lyceum**

Biography

Born in Lesbos *c.*371 BC, Theophrastus succeeded Aristotle as head of the Lyceum in Athens. His pupils included Strato, Erasistratus, Demetrius of Phalerum, and Arcesilaus. His writings ranged over many subjects including mineralogy, botany, philosophy, and religion. He died in Athens *c.*287 BC.

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THEOPOMPUS 378/77–*c.*320 BC

Historian

Theopompus of Chios, son of Damasistratus, was one of the most important historians and public men in the years leading up to and including the reigns of Philip of Macedon and Alexander the Great. Not much is known for certain about his life. Photios (9th century AD) wrote a detailed biography (*Bibliotheca*, 176 = T_2): he was exiled from Chios with his father; he later returned, thanks to a letter written by Alexander to the Chians; on the death of Alexander he fled to Egypt, where Ptolemy I Soter almost had him killed. While some of these details may be doubted, he did in fact write letters to Alexander, and Alexander did restore exiles to Chios. Although there are good reasons for doubting it, Theopompus is widely credited with being one of the pioneers of "oratorical" or "tragic history", in part due to the alleged influence of the Athenian rhetorician Isocrates whose student he was later thought to have been. Certainly for his Roman readers he was thought of as a combination of historian and orator. In the Byzantine period his writing was known chiefly by lexicographers and grammarians, arising from the fact that he was not a canonical author. His work survives to us only in the form of later paraphrase and quotation (F. Jacoby, *Fragmente der griechischen Historiker*, 115).

According to ancient testimonia, Theopompus was the author of a number of historical works and minor treatises: the *Epitome of Herodotus*, *Hellenica*, and *Philippica* on the one hand, and *On the Funds Plundered from Delphi*, *Against the Teaching of Plato*, and encomia of both Philip and Alexander on the other. Given the propensity in antiquity to epitomize works and then view those epitomes as different productions from the material from which they came, it is probable that Theopompus did not in fact write all of the above works. Far and away his most important contributions were the *Hellenica* and *Philippica.*

According to Marcellinus' biography of Thucydides (chapter 45), both Xenophon and Theopompus completed their great predecessor's history of the Peloponnesian War, which breaks off in the year 411 BC: in both cases, these works were entitled *Hellenica* or *Greek Affairs*. However, unlike Xenophon's text, which reports events down to 362 BC (the second Battle of Mantinea), Theopompus took his narrative down only to the year 394 BC (the Battle of Cnidus). A claim by Porphyry that Theopompus plagiarized a portion of Xenophon's history in his own work places its composition in the late 350s BC. A papyrus published in 1908 and subsequently called the *Hellenica Oxyrhynchia* was thought by some to be Theopompus' *Hellenica*, though this claim has not won general acceptance. The two fragments of any real substance that survive from the *Hellenica* deal with the moral characters of the Spartan leaders Lysander and Agesilaus, in the same spirit as much of what survives from the *Philippica.*

The *Philippica* treated events between Philip II's assumption of the Macedonian throne in 359 BC and his death in 336 BC. It comprised 58 books, and must have been massive in scale. As the title suggests, it is an account of Greek history understood as unified by the activities of Philip; according to Polybius (2nd

century BC), Theopompus chose to organize his text around Philip because "Europe had never before produced such a man as Philip, son of Amyntas" (8. 11. 1 = fr. 27). While Theopompus recognized the king's importance for shaping the events of his age, he did not take a positive stance towards him. Indeed, quite the contrary: Philip is simultaneously a corrupting force in the Hellenic world, and his victory over the Greeks is proof of their decadence. Theopompus frequently engages in an analysis and evaluation of the characters of men and states, and he is especially interested in the detrimental effects of luxury: so, for example, famous Athenian statesmen are criticized for their personal failings (frr. 97, 99), and whole populations such as the Ardiaeans (fr. 40) and the inhabitants of Byzantium (fr. 62) are singled out for scorching moral censure. Some of Theopompus' criticisms stem from personal bias as well as a dislike for democratic institutions. He can also offer positive evaluations of character: the portraits of Lysander and Agesilaus from his *Hellenica* are good examples.

With the exception of a few Hellenistic historians who were also interested in the question of moral decay and luxury (Timaeus, 4th–3rd centuries BC; Duris of Samos, 4th–3rd centuries BC; Phylarchus, 3rd century BC), Theopompus' influence on subsequent historiography was not great. However, ancient readers were broadly familiar with his work. Critics such as Dionysius of Halicarnassus, Cornelius Nepos, and Lucian all point to Theopompus' acerbity and censorious stance: he is, as Nepos describes him, "maledicentissimus" – the most abusive writer.

Theopompus' work was known in some form by late anti-Atticist writers and lexicographers. Several of his fragments are taken from Stephanus of Byzantium (6th century AD); and, as noted above, the patriarch Photios provides an important biographical notice, as well as fragments of his work. Krumbacher (*Geschichte der byzantinischen Literatur*, 1. 232) adduces Theopompus as a precedent for the court historian Procopius of Caesarea (5th–6th centuries AD), but does not claim any direct influence.

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See also **Historiography**

Biography

Born in Chios in 378/77 BC, Theopompus was exiled from Chios with his father for sympathizing with Sparta. Allowed back by Alexander the Great in 333/32, he was exiled again on Alexander's death and fled to the court of Ptolemy I Soter. According to tradition he was a pupil of Isocrates and worked as an orator. In addition to various speeches and treatises, his principal works were historical: *Epitome of Herodotus*, *Hellenica*, and *Philippica.* He died *c.*320 BC.

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THESSALONICA

City in Macedonia

Founded by decree in 316 BC by Cassander, who subsequently became king of Macedonia, the city was named after his wife Thessalonica, half-sister of Alexander the Great. It comprised 26 older towns and hamlets of the region, whose inhabitants were encouraged to resettle at the new location. Some of these towns survived the foundation of Thessalonica, while others disappeared entirely. Thessalonica was to serve as the harbour of Pella, the Macedonian royal capital, which had become landlocked as a result of the sedimentation deposited by the four large rivers of western and central Macedonia. The city plan followed the Hippodamian system applied to contemporary cities, a grid of streets at right angles to each other. Despite its long and turbulent history since the Hellenistic era, through periods of great prosperity and times of hardship and instability, Thessalonica has preserved the main features of the original orthogonal layout, corrupted in times of overcrowding. Furthermore, the walls, which have defended Thessalonica since late antiquity, defined an area of 330 hectares, which – with some alterations mainly on the eastern side – became the confines within which the city developed until its expansion after the mid-19th century.

Owing to its geographical position Thessalonica prospered as a centre of commerce and industry and was already a wealthy city when the Romans conquered Macedonia in 168 BC after the battle of Pydna. Its inhabitants remained loyal to the imperial party during the civil wars that followed the assassination of Julius Caesar in 44 BC. Under the Romans Thessalonica acquired an additional military importance, since it often hosted army units on their way to defend the empire against enemies in the east or against hostile tribes of migrating peoples from the north. Indeed, the very routes that carried trade, ideas, and wealth in times of stability were to bring raids, armies, and violence in times of instability, both on a large scale, as the Pax Romana, the lengthy period of peace inaugurated and secured by the Romans, was drawing to an end in the mid-3rd century AD.

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THESSALY

Region of central Greece

Thessaly is an easily identifiable area, bounded by the Pindus mountains on the east, Pelion and Ossa to the south, and Mount Olympus to the north. In between there are two large plains, divided by a range of hilly country. These plains, at the centre of which lie Larissa and Trikkala, are much larger than any other comparable area in Classical Greece, and perhaps explain why Thessaly in both ancient and modern times has not followed the pattern of the rest of Greece. The climate is a little harsher. Thessaly never really developed the city state. The

territory became Greek in 1881, well before Macedonia and Epirus, but long after the rest of Greece. Though more clearly Greek than either Macedonia or Epirus, it used to contain a large Turkish element in its population and still contains many Vlachs. It has an extensive coastline and a major port in Volos, but is far less bound to the sea than most of Greece. The olive and the vine grow less well, but traditionally Thessaly has been rich in horses, cattle, and grain.

Thessalians figure in the Homeric catalogue, and Achilles came from Pthiotis in the southeastern portion of Thessaly. The Thessalians of the Classical period appear from their dialect to have been a mixture of the original Homeric element and invaders such as the Dorians from the northwest. The latter appear to have ruled as an oligarchy with one of their number elected as *tagos* or leader of the whole of Thessaly. An early family to achieve prominence were the Aleudae, based on Larissa, but they lost favour through supporting the Persians. In the Peloponnesian War the Thessalians were generally on the Athenian side, but not very effectively. Jason of Pherae in the 4th century BC gained considerable power, but his assassination prevented him from anticipating Philip of Macedon, who easily gained control of a divided Thessaly. Thessalian cavalry formed an important part of Alexander's army, and Thessaly generally remained loyal to Macedon until the Roman victory at Pydna in 168 BC.

While the rest of Greece on the whole suffered under Roman rule, there are complimentary references in Latin literature to Thessaly's plains, mountains, and rivers. Lucan, though mainly concerned with mythology, gives a glowing tribute in his *Pharsalia*. A Roman colony at Dium and a good road from Thessalonica to Athens ensured a plentiful Roman presence, well attested by inscriptions. Larissa and Tricca (Trikkala) were the main towns. Towards the end of the 2nd century AD Apuleius paints a gloomier picture of brigandage and witchcraft. The barbarian invasions in the Roman empire's declining years sometimes reached as far as Thesslay, and when the Danube frontier finally broke in 602, western Thessaly was soon lost to the invaders with Byzantium maintaining a precarious control only over the coastline.

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THRACE

Region bordering the north Aegean

Thrace and Thracians are the names given by the ancient Greeks to the territory and the people living in the region bordering the north Aegean. Neither the origin of the name nor the local name for this large territory is known. Over time the boundaries of Thrace changed. It was at its greatest extent in the 5th century BC when the Odrysian kingdom was established, stretching over present-day Bulgaria, east of the Hebrus (Turkish Thrace), and Greece between the Hebrus and Strymon, except for the coastal areas from the Danube to north of the Hellespont, and from Constantinople to Strymon in southwest Bulgaria. The territory was rich in fertile plains, forests, fish, precious metals, and iron and copper ores. The Thracians who are mentioned by Homer (*Iliad*, 6. 130, 9. 5, 14. 227, etc.; *Odyssey,* 8. 361) were agricultural tribes. Ancient writers give the names of many Thracian tribes: Tribali, Odrysae, Dardani, etc. They were a warlike, rural people, ruled over by various dynasties. The king of Odrysae was the dominant figure in the Classical period, until Philip II of Macedon invaded Thrace in the 4th century BC and established various cities including Philippopolis (Plovdiv). After the death of Alexander the Great in 323 BC Thrace fell to Lysimachus.

Greek colonies were established on the shores of Pontic Thrace from the end of the 7th century BC (Apollonia Pontica, Mesembria, Odessus) and from the middle of the 7th century BC in Aegean Thrace (Abdera, Maroneia, Aenus, Perinthus). Orpheus, the mythical singer, son of Apollo and a Muse, is generally called a Thracian and Thrace was considered to be his home. His grave and cult belong not to Thrace but to Pierian Macedonia, northeast of Mount Olympus, a region that the Thracians had once inhabited. Orpheus' song had superhuman powers and an important consequence of his miraculous song was his creation of Orphic poetry. The image of Orpheus was very popular in Greek and Roman art. In Attic vase painting he was represented in oriental as well as Greek costume. Several vases show him being killed by Thracian women.

The close links between Greece and Thrace are demonstrated not only by the depiction of Thracians in Attic vase painting but also by the introduction of the cult of the Thracian goddess Bendis to Athens in the 5th century BC. Greek artists represented her as a booted huntress, like Artemis. A priestess was assigned to her by one of the decrees of 413/12 BC and a great festival was established in Piraeus, at which twin processions of native Thracians and Athenians were followed by a torch race on horseback, and celebrations continued all through the night.

Thracian religion is a much-debated subject. The information given by ancient writers, especially Greeks, presents the Greek interpretation of local religious beliefs. Herodotus (5.7) states that the Thracians worshipped Ares, Dionysus, Artemis, and Hermes. The similarities between the worship of a Great Goddess and the cult of Artemis in Asia Minor or of Cybele are obvious. The idea of heroization was restricted to members of the nobility and royal family. The existence of a cult of Helios is attested not only in Greek literature (Sophocles, *Tereus,* fr. 582) but by archaeological and numismatic data. The most popular cult was that of the so-called Thracian Rider, represented by about 2500 votive stone monuments, often of the rider hunting.

Little is known about Thracian culture of the Archaic period. We have much more evidence from the period of the establishment of the Odrysian kingdom in the 5th century BC, although our knowledge of Thracian culture is confined to that of the ruling elite. The Thracians were very advanced metalworkers, and many metal objects made of gold or silver, especially drinking vessels, are known from the tombs of local rulers and nobles; Greek and Achaemenid or Achaemenid-type vessels are also known. Stylistically, there is a mixture of Greek, Achaemenid, and local elements. The quantity of vessels and pieces of jewellery found in tombs is quite impressive. The information provided by Thucydides (2. 37) concerning gift giving and

tribute collected from Greek cities and from "all the barbarous nations" in the reign of Seuthes (424–*c.*408 BC), the king of the Odrysae, makes it clear that the Odrysian kingdom was similar to the Achaemenid empire in that the king exploited Greek craftsmen to create his culture. Excavation of the settlement at Vetren, in the Thracian hinterland not far from Plovdiv, shows that this practice began in Thrace in the mid-5th century BC. This settlement, the residence of the local ruler, was built entirely by Greek architects and masons, as the planning and layout, paved streets, and, most importantly, city-gate and fortification system demonstrate.

Greek influence on local elite culture was strong. The nobility used the Greek alphabet, as seen on a ring and vessels from the Rogozen Treasure (now in the National History Museum, Sofia). In the Hellenistic period the Greeks became even more heavily involved; for example, the town planning and architecture of Seuthopolis (which had an agora), as well as its fortifications, are examples of Greek craftsmanship and masonry, as in Vetren. Inscriptions, legends on coins, and stamps and graffiti on Thracian pottery all indicate that the Greek language was very much used in Seuthopolis. In this royal city, built and decorated entirely by Greeks, temples as well as Thracian clay altars were found. The religion shows very strong Greek influence. Another royal city, Cabyle, archaeologically less well known, has an inscription in ancient Greek which is identical to that found in Seuthopolis. The Getic capital at Sboryanovo, which has been studied since the late 1980s, has also revealed a stone fortification system, stone architecture, and inscriptions in Greek.

Greek masons were further employed to build and decorate tombs. In the chamber of the barrel-vaulted tomb at Sveshtari a Doric entablature is supported on the raised hands of women, with the help of five Corinthian half-columns: this is redolent of Greek caryatids. There are impressive murals in a tomb at Kazanluk: chariot races, a Greek decorative frieze of bowls and bucrania, and figures approaching the dead prince and his consort seated at a table. All the trappings and furniture are Greek. Since the 1980s excavations in the Shipka area have brought to light several dozen rich tombs, some decorated with very impressive murals.

Roman involvement arose from Thrace's links with Macedonia. After the Macedonian revolt of 149 BC (in which Thrace was heavily involved) was put down, Rome aimed to stabilize the area by establishing client kings in Thrace. These continued until AD 46 when the country was annexed and made into a province. It became one of the most important Danubian provinces of the Roman empire, and protected the lines of communication from Macedonia to Bithynia and Asia Minor via Byzantium. Barbarian ravaging of Thrace, which began with the Goths passing through in a swathe of destruction, continued in the 4th and 5th centuries AD.

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See also **Bulgaria**

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THUCYDIDES

Athenian historian of the 5th century BC

Thucydides was a member of an Athenian aristocratic family which owned gold mines in Thrace and was connected at least by friendship, possibly also by marriage, with the local Thracian aristocracy. In 424 BC, during the Peloponnesian War between the Athenian empire and the alliance headed by Sparta, he held an amphibious command on the Thracian coast, but went into exile in consequence of his failure to prevent the Spartan capture of a strategically valuable city. He returned to Athens in 404 BC, when all the exiles were recalled, and died probably about 395 BC.

According to his own account, when the Peloponnesian War began in 431 BC he decided to write its history. This ambition was not completely realized, because his work, which survives, ends abruptly in the winter of 411 BC, though passages elsewhere refer clearly to the end of the war in its 27th year. His account (book 8) of the 20th and 21st years differs in character from books 1–7, and may represent a stage intermediate between a first draft and a final version. Histories of the last six years of the war were written by others in the 4th century BC.

Thucydides was not the first major Greek historian, for Herodotus' history of the Persian invasion of Greece appeared a generation earlier, but he was nevertheless a pioneer who did much to shape the form and nature of subsequent historiography. In particular, he put speeches, condensed in language and thought, into the mouths of his personages on critical or otherwise memorable occasions. The most famous has long been the funeral speech of his Pericles in book 2, at the burial of the war dead of 431 BC. The speeches are sophisticated in language and replete with moral, political, and psychological generalizations. There are, of course, abundant speeches in Homeric epic, and quite a number in Herodotus, but Thucydides is peculiar in that he had been present on some of the occasions which he adorns with speeches, and could have learned much about the rest from contemporaries. Aware of the role of the spoken word in determining the decisions of the Greek city states, in his preface he divides the content of his work into "what was said" and "what was done", and claims that he had recourse to inventing what speakers "needed" to say only when he could not recall or discover what they actually said. The extent to which this claim is compatible with what we read in his text (in books 1–3

speeches amount to nearly a third of the whole) is a focus of controversy which is likely to continue. Whatever his own intention, he unwittingly set a bad example to later historians, Greek and Roman alike, who, writing for a culture devoted to the art of oratory, assumed the right to invent speeches.

In narrative his style is usually simpler than in speeches, and sometimes vivid and dramatic, but his generalized descriptions of situations (for example, the moral effects of the plague in book 2 and the disastrous spread of civil strife in book 3) are hard going. He experiments with syntax, deploys a stock of unusual abstract nouns (some probably coined by him), and often seems to be trying to convey too much in too few words. Our problems as readers might well be solved if we could hear him reading his own text aloud and could note his placing of stress and pause. Since ancient literary critics could no more do that than we can, they found him a difficult author and often disagreed over his meaning.

Such experimental language is one aspect of the tendency among intellectuals in his time to innovation and rejection of tradition. Save in one doubtful instance, he is sceptical about oracles, never attributes historical events to divine intervention, and gropes after scientific explanations of natural phenomena. In these respects he is much nearer to early medical writers than to Herodotus; indeed, he seems to have modelled his description of the plague on them, though differing from them in terminology. In a few articulate intellectuals the shift from a religious to a scientific world view generated the idea that the good and admirable person is the one who (following the law of nature) imposes his will on others for his own self-aggrandizement. Thucydides certainly does not think that. The belief that he does, still widespread, is generated by the error of treating arguments put forward in this or that speech as if they were his own.

He is undeniably an impressive, magisterial writer, professing strong attachment to accuracy and adopting a detached view which only rarely wavers under pressure from his emotional reactions and predilections. A sombre tone manifest in some of his observations on human behaviour may also he inferred from some of his apparently "deadpan" statements, and this has given him, over the centuries, a reputation for integrity, profundity, and wisdom. He was extensively read and studied in Byzantium; Procopius in the 6th century AD borrowed whole passages, and in the 12th century, while the scholar Tzetzes was exasperated by Thucydides' obscurity, Anna Komnene strewed her history with unusual Thucydidean expressions, thereby enlarging the gulf between classicizing language and the vernacular of her time. Thucydidean language and style (with some injections from Herodotus and Polybius) continued to serve as a model for Byzantine historiography; a notable example is the work of the emperor John VI Kantakouzenos in the 14th century. He was translated into Latin by Lorenzo Valla in 1452, and into English in 1628 by Thomas Hobbes, who idolized him, not least for his exposure of what Hobbes regarded as the follies of democracy.

In Greece, Neophytos Doukas prepared an edition of Thucydides with Latin translation, published in Vienna in 1805. Korais in his *Hellenic Library* ignored Thucydides, either because Doukas had got in first or because Thucydides was unedifying and insufficiently philosophical. The difficulty of the language came to be recognized as a serious obstacle to Thucydides' attainment of the central place in educational curricula that his fame might seem to justify, and in 1920 the statesman Eleftherios Venizelos embarked on a translation into a somewhat literary demotic Greek, published posthumously in 1937. Venizelos believed (as Thucydides himself did, to judge from what he says in his preface) that constants in human behaviour are such that a careful and wise account of an ancient war abounds in political lessons which are still valid.

But *is* Thucydides "careful and wise"? Is he even a reliable authority on the details of his narrative? In the 20th century no other Greek author has been subject to so heavy a revisionist onslaught. A general decline in reverence reminds us that a gifted writer can profess devotion to truth and then compose a narrative that is largely fiction. Modern standards of historiography make us aware that a narrative such as Thucydides' comprises many thousands of data, of which only a very small fraction can he checked against other relevant evidence. On topographical matters he is sometimes wrong; and when what he says is irreconcilable with what is said by later historians patently drawing on independent sources, we cannot simply assume that he, the master, must be right. No later historians, of course, can be treated as "confirming" him, because they may be drawing on him. He virtually never reveals, let alone discusses, his sources, but expects us to trust him to have put the right questions to his informants and to have pursued them until he got what we would regard as adequate answers. He very often makes firm statements about the hopes, fears, plans, and ambitions of individuals, and it is a failure of historical curiosity on our part if we do not ask, "How did he know?" There is a certain arrogance in his declaration that he begins his history with an account of the causes of the war "so that no one need ever seek to discover how so great a war arose"; little did he know how much would be written in our time on precisely that question.

Historians are necessarily selective, for otherwise their task would never be done, but selection presupposes at least a tentative interpretation, no matter what may be added or subtracted in the definitive interpretation. Given massive evidence, it is easy to discern what underlies a particular historian's selectivity, but our evidence for the Peloponnesian War is far from massive. The most interesting aspect of Thucydides' selectivity is his allocation of space: four lines on the massacre at Scione, six pages for the dialogue between Athenian and Melian negotiators preceding the siege and eventual massacre at Melos. Selection apart, it is suspected that Thucydides on occasion went beyond mere exaggeration, beyond an illegitimate slide from "must have been" to "was", and had recourse to fiction in order to assimilate his narrative to the theatrical unfolding of a Greek tragedy. The implausible role which he consistently assigns to pure chance in the account of the fighting at Pylos (in book 4) is notably vulnerable to this suspicion. However, the evidence that he embraced fiction on that occasion and may possibly have done so on others falls far short of proving that he had any intention of turning historical exposition systematically into myth. A chain of tragic events must necessarily resemble tragedy, and before denying Thucydides the status of historian we would need to discount the immense quantity of down-to-earth details which constitute by far the largest ingredient of his work.

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See also **Historiography; Peloponnesian War**

Biography

Born to an aristocratic Athenian family which owned gold mines in Thrace, Thucydides fought as a general in 424 BC. After a period of exile he returned to Athens in 404. His history of the Peloponnesian War survives but is incomplete, ending in 411. He died *c.*395 BC.

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TIMAEUS

Historian of the 4th–3rd centuries BC

Timaeus of Tauromenium in Sicily, a Greek historian of the front rank, was born in the middle years of the 4th century BC and died in the late 260s BC in advanced old age. Naxos, the original home city of his family, was destroyed by Dionysius I of Syracuse in 403 BC. In 358 BC Timaeus' father Andromachus gathered together all the surviving Naxians and settled them at Tauromenium. There Timaeus was born and there he lived until the mid-310s BC when he was exiled by the tyrant Agathocles of Syracuse. He took refuge in Athens where he spent the next 50 years, first studying under a former pupil of Isocrates, and subsequently researching and writing in that city's libraries, for which he was derided by Polybius as a pedant and an armchair historian par excellence. Possibly he died at Athens.

As a preliminary to his historical work he researched (at Olympia) and published a study of Olympic victors to which he appended, apparently in the form of tables, the corresponding sequences of Spartan kings and ephors, Athenian archons, and priestesses of Hera at Argos. Greek chronology at the time was a highly complex and bewildering affair that hampered the task of serious historians. Timaeus' system of reckoning by Olympiads, though by no means perfect, marked a definite advance and was a commendable effort to impose order on chaos. It was adopted by Polybius, who otherwise had no kind words for Timaeus. Though he lived and worked at Athens, like many another émigré, Timaeus' attention was constantly turned towards the country of his origins, his concern as a historian being the history and achievements of western Hellenism. His *Histories*, in 38 books, were a detailed study of the Greeks of the west, of Sicily in particular, from earliest times until the death of Agathocles in 289/88 BC. To this magnum opus he added a further composition that dealt with the wars in Italy against Rome of king Pyrrhus of Epirus, and which brought events in the west in general down to 264 BC. And this therefore became Polybius' starting point.

As one of the earliest and best of Hellenistic historians, Timaeus' work seems to have combined with some success the various strands and tendencies of Greek historical writing that had been developing since the late 6th century BC. Into a framework of straightforward political and military history (what Polybius called a "pragmatic" history) he incorporated much else of diverse nature, very much in the mould of Herodotus and Ephorus. On the other hand, the unwelcome tendency to dramatize, and indeed sensationalize, historical narratives by, for instance, emphasizing and developing further appropriately pathetic elements in a story, a characteristic of much Hellenistic historiography, appears to have been a feature of Timaeus too. Furthermore, his Sicilian background and experiences clearly conditioned his work and help to explain certain aspects of it that gained its author notoriety. One such aspect was the extreme hostility with which he dealt with the tyrannies of Dionysius I, Dionysius II, and Agathocles at Syracuse, which took up most of the 4th century BC, a most important period for western Hellenism. As Polybius and Diodorus Siculus pointed out, blinded by personal hatred Timaeus seriously distorted the record of history. The other side of the same coin, which Polybius likewise criticized as a falsification of history, was Timaeus' propensity, when the above tyrants and their associates were not involved, to idealize Siceliots and their achievements.

Yet even when his personal feelings were not involved, Timaeus, it would seem, was far readier to censure than to praise, a trait that earned him the epithet (a play on his name) of "Epitimaeus", meaning the "fault-finder". He was not a respecter of persons, the greater writers and thinkers being criticized alongside persons of humbler accomplishers. The surviving fragments do not enable us to draw any firm conclusions as to his motives, but in some instances certainly a passion for accuracy appears responsible, as when he criticized Ephorus'

arithmetic. Diodorus has preserved for us the respective figures for Carthaginian armaments given by Ephorus and Timaeus and we see that in every instance Timaeus' numbers are far more moderate and realistic. The merits of the *Histories*, therefore, outweighted the flaws and it is not surprising that such a detailed and readable account, one moreover set against a firm and lucid chronological framework of Olympiads, quickly established itself as the standard account of western Hellenism and the western Mediterranean in general, and so it remained for centuries. Undoubtedly a contributory factor here was what Timaeus said about Rome. He was not the first Greek historian to refer to Rome, but he was one of the first to appreciate the city's significance and certainly the first to present a fairly detailed and connected account of Rome's early steps on the international scene. As such he exerted considerable influence on Roman historiography.

P.J. STYLIANOU

See also **Historiography**

Biography

Born in the mid-4th century BC at Tauromenium in Sicily, Timaeus was the son of Andromachus of Naxos who refounded Tauromenium in 358 BC. Timaeus was exiled by Agathocles of Syracuse in the mid-310s and moved to Athens where he studied and wrote his *Histories*, a study of the Greeks of the west in 38 books. He died *c.*260 BC.

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TINOS

Island in the Aegean

The small island of Tinnos lies to the northwest of the main group of the Cyclades, with an almost equal distance separating it from Andros to the northwest and Mykonos to the southeast; it has an area of 60 sq km. The interior is hilly, with a major mountain formation, called Mount Tsiknia, rising to 713 m in the east of the island; where crops can be grown, often by means of terracing, it is mainly fertile. The silk grown here was the most prized throughout the Cyclades, and for several centuries in the post-Byzantine period it was exported to Italy and France where it was widely bought as a Tiniot speciality.

According to an early tradition, the island abounded with snakes, and due to this it was known as Ophiousa; by tradition, Poseidon sent storks to eliminate the snakes, and the grateful Tinians built a famous temple dedicated to him. In 480 BC Xerxes forced the islanders to serve in his navy in the war with Greece, but before the battle of Salamis one of their ships was able to desert and tell the Greeks of the Perisan plans. "For this reason the Tinians were inscribed upon the tripod at Delphi among those who overthrew the barbarians" (Herodotus, 8. 82). In 378 BC the islanders joined the Athenian confederation and fell under Macedonian control in 338 BC after the Battle of Chaeronea.

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See also **Cyclades**

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TIRYNS

Bronze Age city in the Argolid

Tiryns is described by Homer as "wall-girt" and, in the catalogue of ships, it formed part of the realm of Diomedes, ruler of Argos. The north/south division of the Argive plain that this implies may now be justified on recently expanded evidence of the Bronze Age road system. In myth Tiryns was the seat of Eurystheus who inflicted the 12 labours on Heracles, and thus features in several of Pindar's odes.

The site lies in the southeast of the Argive plain on an isolated limestone knoll rising some 20 m above the surrounding area; it divides naturally into three sections known as the Oberburg, Mittelburg, and Unterburg. Geomorphological work indicates that in the Late Bronze Age the sea lay only 1 km from the foot of the knoll. Tiryns may thus have been the main port for the Argolid at a period when boats were beached rather than moored or anchored. In the 12th century BC the settlement extended widely around the site. Lack of evidence for this feature from earlier periods is thought to be the result of deep deposition from a flash flood that buried the settlement under alluvium. To prevent further inundation an extensive barrage was built higher up the valley to divert the torrent into another streambed. A hill to the southeast has two tholos tombs built into the west face and a series of chamber tombs (15 fully excavated) on the east. Further cemeteries for the 15th to 12th centuries BC remain to be found.

Excavation was begun in 1831 by Friedrich Thiersch and Alexander Rizos Rangabé and continued by Heinrich Schliemann in 1876. From 1884 Schliemann with Wilhelm Dörpfeld carried out a systematic exploration for the Deutsches Archologisches Institut, which continued at intervals until 1929. Restoration of the walls was initiated by the Greek Archaeological Service in the late 1950s and led to discoveries requiring further excavation. In 1965 the DAI resumed its work under the direction of Klaus Kilian; the work of publication and clarification continues despite his early death.

Settlement on the site dates back to the Neolithic period (5th millennium BC) but the earliest architectural remains of importance belong to the Early Helladic period. A round building was built on the top of the citadel; it is considered to be one of the series of large monumental buildings built for public or elite use in the EH II period (early 3rd millennium BC) but is the only one of this particular type known to date.

The site was continuously occupied but there are only scattered remains of structures before the Mycenaean period. Then a series of major buildings, usually known as palaces, were constructed on the Oberburg and fortifications of Cyclopean type built around each of the three sections of the site. Several features are particularly notable. A room floored with a single slab of limestone is identified as a bathroom. The so-called galleries are passages that led to storerooms, all corbel-vaulted and built within the thickness of the fortification walls. A similar passage, this time curving, led through a bastion to a small west gate. On the west side of the Unterburg two similar passages led through the wall and underground at a distance of *c.*30 m to sumps where water collected, thus affording an emergency supply of water approachable only from within the walls.

In post-Mycenaean times, probably in the Geometric period, the central megaron was divided and a small temple created. This was dedicated to Hera. To the same period may be assigned the final square phase of an altar in the inner courtyard. Well-equipped tombs of the Protogeometric and Geometric periods have been excavated from immediately south of the citadel. A notable find has been identified as a helmet of Protogeometric date. To the Archaic period can be assigned a group of unique votive offerings including terracotta shields painted with scenes of warfare and gorgon masks as well as many more usual small terracotta figures of women. Also of the Archaic period are inscriptions carved on the upper outer face of the stones that roofed the passages leading to the underground water supply. These indicate that the partially destroyed wall was used at this point as seating for the population in an assembly. Tiryns joined with Mycenae in sending troops to fight the Persians at Platea in 479 BC, and a decade later suffered a similar destruction at the hands of the Argives. The population is said to have migrated to Haleis (modern Porto Cheli) at the southern end of the Argive peninsula, where numismatic evidence supports the claim.

Strabo describes Tiryns in terms similar to those he uses for Mycenae, as a site once famous and now without significant habitation. Pausanias mentions only the walls. In Roman times an olive press was constructed inside Tholos I. A small Middle Byzantine church was built over the inner side of the outer wall at the south of the Oberburg. Around it were several graves. Both church and graves as well as a threshing floor that had been built above them were removed in excavation to reveal the Mycenaean site.

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See also **Mycenaeans**

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TOURISM

Tourism, in the sense of travel undertaken for pleasure, was probably not a common feature of ancient Greece, or in fact of the ancient world as a whole, where the conditions of travel must generally have been far from pleasant. Poor and dangerous roads, uncomfortable inns, expensive and inconvenient transport, and rampant piracy must all have contributed to discourage travel as a pastime.

Ancient travellers, however, the wealthy ones in particular, shared many of the objectives of tourism as we know it today: rest, recreation and relaxation, education, religious, cultural, and aesthetic experience, sports, food, shopping, and social contact. They may have retreated to the mountains or the seaside in summer to get away from the congestion or the boredom of the city, as suggested, for instance, by Lucretius (*De Rerum Natura*, 3. 1301–1318). Others probably visited curative thermal spas in search of relief from ill health. In the absence of diplomatic establishments, they relied on guest-friendships between families of different regions.

Although mass tourism is a relatively modern phenomenon, travellers throughout the ages have reacted as tourists, whatever the original purpose of their journeys may have been. From early times seaborne trade, in particular, was closely associated with sightseeing, even though the Greeks, at least those of the Homeric epics, did not show much enthusiasm for seagoing. Yet Odysseus, the ancient traveller par excellence, was admired as one who had seen many cities and visited many nations. Roman country estates and watering places and medieval centres of religious pilgrimage no doubt represent the small beginnings of a tourist industry. Some of the spas frequented by the Romans attracted pleasure seekers as centres of luxury, gambling, and high living. Due to its prestige as a cultural centre Athens, even after losing political importance, continued to attract Romans with pretensions to learning. The Greek and latin graffiti on pharaonic monuments and the papyrus (*Tebtunis Papyri*, 1902–38, 1. 33, p. 58 in Bagnall and Derow's edition) detailing instructions to prepare for a Roman senator's visit to the Fayum prove that in Roman Egypt sightseeing had come into its own. Memphis and the Fayum, Thebes, and the Valley of the Kings were popular destinations. On the Nile the Ptolemies employed great luxurious houseboats known as *thalamegi.* With the growing popularity of Panhellenic sanctuaries and the growth of academically prestigious centres, travel for spiritual and intellectual purposes must have become more common; in any case, sightseeing received monumental conceptualization in the idea of the seven wonders of the world. These consisted of the greatest achievements of ancient technology, architecture, and art known to Greek and Roman writers, which were visited during the Hellenistic age and remained the most

famous attractions of the Roman world. The list first appeared around 130 BC in a poem by Antipater of Sidon included in the *Greek Anthology*, and a treatise on the subject (probably from the time of the Roman empire) has been attributed to the engineer Philo of Byzantium (*fl.* 146 BC). The canon originally consisted of the pyramids of Giza in Egypt, the city walls of Babylon, the hanging gardens of Babylon, the temple of Artemis at Ephesus, the statue of Zeus at Olympia, the Mausoleum at Hallicarnassus, and the colossus of Rhodes. Listings from Pliny's time onwards generally substitute the Pharos lighthouse at Alexandria for the city walls of Babylon.

One of the earliest Greeks known to have gone abroad (at least ostensibly) for the purpose of seeing the world was the Athenian statesman and poet Solon (*c.*640–*c.*558 BC). Although he belonged to an aristocratic family, he was poor in his young days and travelled as a merchant to enrich himself. But after promulgating his laws he travelled to Egypt and Lydia as a tourist (Herodotus, 1. 30). Herodotus (*c.*480–*c.*425 BC) himself travelled widely in order to gather material for his *Histories.* He was intrigued by the customs of Egypt, where nothing was done as in Greece. His theme was the conflict between the Greeks and the Persians, and he personally visited many of the regions that made up the Persian empire. He was preceded in this respect by the geographer Hecataeus of Miletus (*fl. c.*500 BC) who compiled a book entitled *Journey round the World (Periodos Ges)*, a sort of itinerary, based partly on his own travels, in which he described countries, their inhabitants and customs, animals, and curiosities, and included local fables. A map (which may have been an improvement on an earlier one by Anaximenes) was appended to it. The authenticity of this book, which survives only in fragments, has sometimes been questioned, but is now generally accepted. Fragmentary also is the descriptive work *On the Cities in Greece* by Heraclides Criticus of the 3rd century BC (ed. F. Pfister, 1951). The Roman elite, and above all emperors, pursued travel as a pastime. Hadrian (AD 117–38), a Hellenist who spoke Greek better than Latin, travelled in all the provinces, and built at Tivoli near Rome a vast villa in which the finest buildings he had seen on his travels were reproduced on a small scale.

The only work of ancient travel literature that has come down to us in its entirety is the *Description of Greece (Hellados Periegesis)* of Pausanias who, in the middle of the 2nd century AD, travelled throughout the Greek mainland visiting the principal cities (including Athens) and religious sanctuaries such as Olympia and Delphi. His work is a guidebook for tourists, in which he describes in succession various parts of Greece, and he enumerates their most worthy possessions including statues, pictures, tombs, and sanctuaries, giving their etymology, narrating anecdotes, legends, and historical episodes. He related in detail what he saw, and his book is particularly valuable for information about Classical works of art and buildings no longer extant. He also provides much information about customs, religion, and social life in Greece under the Roman empire. He mentions rivers, roads, and villages, curious customs and superstitions, but references to scenery and natural products are rare, and he shows little interest in economic aspects of the country or in its inhabitants.

The extirpation of piracy by Pompey and Augustus and the unification of the Roman empire by the latter gave greater security to travel, though it was still vulnerable to weather conditions, the menace of robbers and brigands, and the many discomforts of ancient transport. The development of travel necessitated the growth of infrastructure, which in its turn encouraged voluntary travel by the provision of support in the form of inns, eating places, etc., though the elite often preferred to rely on reciprocal hospitality. Travelling for pleasure was no doubt enhanced by geographical writing which grew in parallel with mobility in general.

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See also **Travel**

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TOWN PLANNING

In the Neolithic settlement of Chirokitia on Cyprus (*c.*5500 BC) we encounter one of the first examples of a street. It runs uphill from the bank of the Maroniou river, crosses the settlement, and descends on the opposite side. In modernday Athens archaeologists can trace the path of ancient roads under some of the paved streets. Clearly streets are among the earliest signs of town-planning efforts, underscoring the element of continuity in human settlements. Our experience of the urban environment, however, is not limited to the street layout and its two-dimensional representation on a map. Towns also gain their character from their governing institutions, their civic and religious buildings, their residential quarters, their open spaces, the goods they produce and trade, and their relationship to the surrounding regions.

The plan of ancient Athens, one of the best-studied cities of antiquity, was largely consolidated in the 6th century BC. At that time the Acropolis, once a defensive fort, became dedicated to the deities, and the first administrative buildings were erected in the Agora, the city's political and social centre. By the end of the 6th century BC the Agora defined a quadrilateral area, bounded by magnificent buildings. Other public works were carried out throughout the city, including water and sewer networks. A new road system was established, originating from the Agora. Outside the city there existed three gymnasia, for the military, athletic, and academic training, respectively, of the male youth. Urban legislation, dating also from the 6th century BC, forbade burials inside the city and controlled new

building, while the city architect was charged with the maintenance of temples and other public structures. There was, therefore, an already established town-planning tradition that dictated the city's urban affairs, even though the street network remained irregular – "Attic", as it was often called – following closely the site's topography, rather than a prescribed orthogonal geometry. After the destruction of Athens by the Persians in 480 BC the Athenians could have redesigned their city in a regular manner. Instead, they adhered to tradition and rebuilt it along the same lines, this time surrounding it by a new set of walls. The Persians were finally defeated in 479 BC and the Athenian statesman Pericles marked this victory by initiating a completely new building programme on the Acropolis, with the erection of the Parthenon (447–432 BC), the Erechtheum (421–405 BC), and the temple to Athena Nike (427–424 BC), all dedicated to the goddess Athena.

Unlike Athens, the city of Miletus in Asia Minor, which was also destroyed by the Persians, was rebuilt in 479 BC following a regular plan of orthogonal blocks. Possibly the earlier settlement there was also regular. One of its residents, Hippodamus, who was fairly young at the time, might have participated in the city's rebuilding. Later he undertook the design of Piraeus (*c.*460 BC), Thurii in southern Italy (444–43 BC), and, allegedly, of Rhodes in 408–407 BC. In 432 BC the city of Olynthus in Chalcidice was laid out according to the Hippodamian manner. Its grid of parallel and perpendicular streets defined mostly identical building blocks, with some variations among the individual property lots.

Hippodamus is the only architect and planner whose name has come down to us from Greek antiquity. He certainly did not invent regular, orthogonal planning, since there are several earlier examples of regularly planned settlements from around the world. Greek colonial settlements in southern Italy and Asia Minor also adhered to regular, orthogonal planning. According to Aristotle:

> he was the first who, not being actually engaged in the management of public affairs, set himself to inquire what sort of government was best; and he planned a city state, consisting of 10,000 persons, divided into three parts, one consisting of artisans, another of husbandmen, and the third of soldiers; he also divided the lands into three parts, and allotted one to sacred purposes, another to the public, and the third to individuals.
>
> (Politics, 2. 8)

Hippodamus was one of the first urban theorists and philosophers to reflect on the relationship between a society and its urban environment. His legacy has been associated primarily with regularly planned cities, made up of streets that follow an orthogonal grid.

According to Plutarch, Alexander the Great founded approximately 70 new cities. After his death his successors continued to establish numerous new cities in northern Greece, Egypt, Asia Minor, and Anatolia. They all followed the regular, Hippodamian plan, the simplicity of which facilitated expeditious settlement and land allocation. Thessalonica, an important Hellenistic centre, was founded by Cassander in 316 BC, and laid out in orthogonal building blocks measuring 100 ¥ 50 m. Two major east–west roads, on the site of modern Agiou Dimitriou and Egnatia Streets, traversed the city and led to the city gates. Open public areas contained the ancient agora, a sacred precinct, a stadium, a gymnasium, and a Serapeum. The modern city was redesigned after a catastrophic fire in 1917, but a careful examination of the pre-1917 plan allows us to recognize the Hellenistic grid that ordered it originally. Other prominent Hellenistic cities included Alexandria in Egypt, Pergamum and Priene in Asia Minor, and Damascus, Palmyra, and Dura Europus in modern Syria.

We can also gather significant information on the town planning practices of the Hellenistic period from *De Architectura*, the only surviving architectural treatise from antiquity. Written by the Roman architect Vitruvius (*c.*90–*c.*20 BC), it makes reference to famous Greek architects and their building methods. Vitruvius outlined site considerations for a new city: healthy location, moderate climate, protection from hot winds, and examination of the animals living on the site. "I cannot too strongly insist upon the need of a return to the method of old times", he wrote. "Our ancestors, when about to build a town or an army post, sacrificed some of the cattle that were wont to feed on the site proposed and examined their livers" (*De Architectura*, 1. 4).

After Greece became a Roman province in 146 BC, some of its cities became the beneficiaries of imperial building programmes, while others fell into oblivion. In Athens under Julius Caesar and Augustus the Roman Agora and the Library of Hadrian – both structures located east of the ancient Greek Agora – were erected. Hadrian, the philosopher-emperor (AD 117–38), endowed Athens with a number of buildings and laid the foundations for a new city, Hadrianopolis, on the site of the modern National Garden, Zappeion, and Constitution Square. As a sign of gratitude, the Athenians erected a dedicatory triumphal arch that marked the city of Theseus, on one side, and the city of Hadrian, on the other side. Roman town planning was also based on an orthogonal grid, punctuated by the *cardo* and *decumanus*, the two main streets meeting at right angles at the Roman forum. Thessalonica, which retained its Hellenistic grid, enjoyed a building boom in the years of the Antonines (end of the 2nd century AD), as is evident from the Roman forum, the stoa of the Incantadas, the exedra, and other epigraphic evidence. Also significant is the imperial complex of Galerius Maximianus, built around AD 305, in the southeastern part of the Roman city. It consists of the Rotunda, the arch of Galerius, the palace, the octagon building, and the hippodrome. The north–south axis of the complex follows the orientation of the already established street network.

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TRADE

The earliest evidence for some kind of formal trade (both national and international) comes from the Bronze Age, when the Minoans and the Mycenaeans were interacting with Asia Minor, Cyprus, the Levant, Egypt, and Italy. This is mainly attested by several exotic materials found on Crete and the Greek mainland and by Aegean pottery found in the areas mentioned above. In addition, there are numerous references in Egyptian 18th-Dynasty sources to "Keftiu", which appears to be the equivalent of Caphtor and to be associated with Crete and the Aegean. Whether these exchanges were palace-administered or "free-enterprise" is not easy to say. The Linear B tablets (in the Mycenaean script) do not even mention the word "trade" but the shipwrecks of Ulu Burun and Cape Gelidonya (off the Turkish coast) indicate that some sort of free entrepreneurs were "tramping" from port to port, making various goods available to Greeks, Cypriots, Syrio-Palestinians, and Egyptians. Both the Minoans and the Mycenaeans mainly imported luxury goods such as gold, ivory, ostrich eggs, and lapis lazuli, but also copper, which was very important for them.

After the fall of the Mycenaean civilization around 1200 BC these exchanges did not cease completely, but became less organized than previously. The period from 1200 to 800 BC, which is widely known as the Greek Dark Ages, is considered as a time of poverty, isolation, and illiteracy. One would therefore expect a complete breakdown of such exchanges. The sites of Lefkandi in Euboea and Knossos in Crete, however, have yielded large numbers of high-value Near Eastern imports such as gold jewellery and ivory objects, indicating frequent contacts with the eastern Mediterranean.

It is not a coincidence that the Euboeans were the first Greeks to establish colonies in the west (such as Pithekoussai) and to participate in the development of multinational emporia in the east (Al Mina) during the 8th century BC. The commodities most sought after in the west were metals – iron, copper, and tin. Soon other Greek cities, such as Corinth, Rhodes, and Chios, founded colonies in the west (mainly in southern Italy and Sicily). These colonies, although politically independent, still kept close trade links with their mother city.

By 600 BC Greek trade was flourishing, mainly due to the establishment of permanent trading posts in Egypt (Naucratis), the Levant, and Etruria. In Greece some of the most important trading cities were Corinth, Megara, and the island of Aegina. It was during this time that Athens started to develop as a major commercial centre. The distribution of black-figure ware is the clearest indication of the growth of Athenian trade. In the period 560–520 BC Attic pottery reached most of the Aegean islands, Asia Minor, Cyprus, the coasts of the Black Sea, Egypt, southern Italy, Sicily, and southern France. The most important Athenian import was corn.

The conquest of the east by Alexander the Great in the 4th century BC widened the field of operation open to Greek trade. His successors carried exploration even further and we see, for example, the Seleucids securing the route to India and the Ptolemies encouraging the development of the trade route around southern Arabia. The most traded goods were grain from Egypt and the Crimea, silk from China, gold from Nubia, silver from Asia Minor and Iberia, wine from north Syria, and slaves. Most of our information about trade patterns during the Hellenistic period comes from the distribution of large pottery containers known as amphorae which survive in huge numbers and whose handles used to be stamped with a state's symbol. Many of them are Rhodian and are found in Alexandria. From this we can infer that Rhodes was a major exporter of liquids, with Alexandria being a major recipient.

By the 2nd century BC Delos had become one of the most important commercial centres, especially after 166 BC when the Romans made it a free port. Unfortunately, the most traded commodity was slaves, something that attracted large numbers of Roman businessmen there. It is said that tens of thousands of slaves could pass through Delos in a single day.

IOANNIS GEORGANAS

See also **Colonization; Ships and Shipping; Slavery**

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TRAGEDY

Greek tragedy matured in Attica in the 5th century BC. With one possible exception, all of the surviving plays date from this time and were written by Athenians for competitive performance at dramatic festivals, notably the City (or Great) Dionysia (from at least the end of the 6th century BC) and the Lenaea (from the 430s BC). There were also performances at the Rural Dionysia. Productions were not confined to Attica and there are traditions that earlier forms of tragedy originated in the northern Peloponnese. The main festivals were important civic and political occasions with a strong religious framework expressed in sacrifice, ritual, and processions. There were performances of dithyramb and comedy as well as tragedy. The tragedy competition was part of the Athenian culture of public display, also evidenced in the gymnasium, law courts, and Assembly. Each contestant entered a trilogy followed by a satyr play. Judges were selected by lot from across the tribes and their votes were delivered by secret ballot. Victories were listed in public records (*didaskalia*). These records, although fragmentary, help with dating.

The origins of tragedy are somewhat obscure. Aristotle *(Poetics)* put forward an analysis that has strongly influenced subsequent debate. He suggested that early tragedy was improvised by the leading performers of the dithyramb, a choral song and dance in honour of Dionysus, and that it was also

influenced by the satyr play. Aristotle also gives an account of 5th-century BC developments affecting staging, the balance between choral and spoken words, and the increase in the number of actors from two to three. He emphasized the concept of the tragic hero and argued that tragedy inspired in the audience the emotions of pity (for suffering that was largely undeserved) and fear (because the hero represented the human condition). As a result, the audience would experience catharsis or relief of these emotions, tempered by a sense of satisfaction at recognizing and learning about moral and spiritual truths.

This combination of powerful emotions and the political context of popular democracy was thought by Plato to be dangerous. In the *Republic* he associated tragedy with his criticisms of poetry, especially Homer. Drama and poetry were to be banished from education in Plato's ideal state because he thought that they were concerned with representation rather than reality. He held that their appeal to the imagination and their portrayal of the extremes of divine and human behaviour were morally and politically subversive.

Greek tragedy is a prime example of the theatre of convention. These conventions cover staging, subject matter, and form. The main contextual conventions are that the plays were staged in large, open-air theatres as part of a performance culture embedded in civic and religious life. All actors were male. The City Dionysia had a tradition of competition by choruses. The financing of the chorus (including its maintenance and training) was undertaken as a liturgy (or public service) by a wealthy citizen, appointed by the eponymous archon who also chose the three tragedians who were to be "granted a chorus". The visual nature of the theatre spectacle, with its large audiences (perhaps in excess of 14,000 at the major festivals), had considerable impact on performance styles, especially masks, costume, gesture, and movement. The archaeological evidence for the orchestra, the part of the theatre where the chorus performed, between the stage and the audience, dates from the 4th-century BC theatre at Epidaurus. In the 5th century BC the stage and its buildings *(skene)* were probably wooden with steps down to the orchestra. Stage machinery for tragedy included the *ekkyklema*, a wheeled platform for set-piece displays (such as Sophocles' Ajax surrounded by the carcasses of the animals he had slaughtered in mistake for the Greek leaders). The *mechane*, a crane, enabled "flying" entrances and exits of the gods. Literary sources and vase paintings suggest that masks had stock features according to the character represented. Taken together, masks and the size of the theatre precluded the use of facial expression, thus putting more emphasis on grand gesture, costume, music, and choreography, as well as on the rhetorical force of the dialogue. Masks also facilitated the doubling of roles.

The subject matter of tragedy was also bound by conventions. With one exception all the surviving plays are based on stories from myth. These were part of the common culture of Greece, expressing values often shaped by the Homeric poems and transmitted by the rhapsodes' performance of epic, particularized in vase painting and sculpture, and given local associations through cult. However, these myths, with their stories about the relationships between gods and heroes and their dilemmas of rivalry, revenge, murder, and betrayal in peace and war, were not presented by tragedians as fixed icons of the past. They were reworked and reinterpreted and, because of their indeterminate historical provenance, they provided a distanced but culturally influential setting for the exploration of suffering and the examination of moral and religious imperatives. The selection of particular myths and contrasts in the ways in which they were treated provide important insights into changes in attitude and artistic aims as well as a commentary on Greek perceptions of the relation of myth to the contemporary world and its problems. The surviving exception (others are lost) to the convention of mythological setting is Aeschylus' *Persians* (472 BC), which depicts the aftermath to the Persian defeat by the Greeks at the Battle of Salamis, although the Persian setting maintains the remoteness from Athens that is a feature of most tragedy. A striking feature of tragedy, created in a society that subordinated and marginalized women, is that a significant proportion of the protagonists are female (e.g. Antigone, Medea, Hecuba) and that issues of gender and power are presented from a variety of perspectives.

The formal conventions within which the plays were constructed also served to distance tragedy from over-ready identification with everyday life. Of these conventions, the most important are the chorus, the various types of verbal exchange, and the lament. The chorus consisted of 12 or 15 singers and dancers who performed in the orchestra, providing for the audience a collective mediation of the moral and religious implications of the action of the tragedy. Their entry song (*parados*) was supplemented by lyric exchanges with the actors and by the choral ode (*stasimon*). Reconstruction of the music and dance in tragedy is speculative and so presentation of the chorus has been difficult for modern productions, especially those that take place in a commercial or studio theatre. There were normally five choral performances in a tragedy and the episodes between these were the focus of sung or spoken exchanges. These might include the narration, often in a messenger speech, of vital events, including violence, which by convention took place off stage. Even more important was the formal debate or *agon* between two main characters. This usually included the dramatic device of *stichomythia*, in which actors spoke alternate lines or pairs of lines. Conventionally, a sung lament (*kommos*) expressed the pent-up emotions produced by the dramatic tension and the suffering of the hero. The ways in which these formal conventions are refined or varied provide significant insights into the work of the different writers.

Major parts of the work of three 5th-century BC tragedians have been preserved, while others are represented only by fragments. Aeschylus has seven plays extant and records indicate that he gained 13 victories. Sophocles wrote more than 120 plays and won at least 20 victories, 18 of them at the City Dionysia. Seven plays survive. Euripides had a less consistent record, with four victories at the Dionysia. He wrote about 90 plays, of which 19 survive.

The reception and transmission of tragedy in antiquity from the 4th century BC onwards shaped the responses of later ages. Fifth-century plays were performed and read in the 4th, when there was legislation to prevent wholesale changes to the text. In 386 BC a competition for revivals was established at the City Dionysia, but the 4th century BC also included important new work, and tragedians such as Archestratus, Astydamas, Carcinus, Chaeremon, and Theodectes are either mentioned by Aristotle or were themselves the subject of revivals in the 3rd century BC. The "family" archives of theatre practitioners were

a significant means of preserving previously unperformed plays and an influential feature of the widespread demand for performance was the development of powerful guilds for actors (Craftsmen or Artists of Dionysus) with their own institutions and privileges.

Adding to the early demand for Athenian tragedy in Sicily and Macedonia, Alexander the Great's policy of establishing Greek cities in the east both spread Hellenic culture and exposed it to the contributions of non-Greeks. At Alexandria in Egypt the process of canon formation intensified from the 3rd century BC onwards with the collection together of selected plays of Aeschylus, Sophocles, and Euripides and the addition of commentaries. Demand for the availability of texts for education may have helped to make this a self-replicating operation. Greek tragedy also entered the culture of the Roman Republic through the plays of Ennius, Accius, and Pacuvius. In the 1st century AD Seneca's tragedies, nine of which survive, violently orchestrated the situations and some of the formal elements of the Greek corpus. Senecan tragedy strongly influenced Renaissance theatre, especially in Italy, France, and England.

Once the Roman empire was Christianized and the centre of power shifted to Byzantium, tragedy was again regarded as dangerous, because it was a pagan art form and part of a theatre culture that the Church regarded as obscene (since it involved cross-dressing) and blasphemous (since it invoked the name of Dionysus). State funding for the traditional dramatic festivals was withdrawn and drama exiled to the melange of popular events in the Hippodrome. The alternative to suppression was appropriation and some features of the language and rhetoric of tragedy were absorbed into political and religious life. There was, however, continued artistic interaction between the tradition of tragedy and new work. For example, an undated Byzantine tragedy *Christos Paschon* drew heavily on Euripides, particularly the *Bacchae*, in its exploration of the suffering of Christ.

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See also **Comedy; Dithyramb; Festivals; Satyr Play; Theatres**

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TRANSHUMANCE

Transhumance is a form of herding organized around the movement of livestock between lowland pastures in the winter and mountain pastures in the summer. Herding of this type is a recurring feature of Greek life because year-round maintenance of substantial numbers of animals in either the plains or the mountains of Greece is difficult. The plains must be avoided during the summer months because a nearly complete lack of rainfall makes it impossible to find forage. The mountains must be avoided during the winter months because deep snows and extreme cold make it impossible for flocks to graze. Greek transhumants, drawn by relatively abundant vegetation and mild temperatures, spend the months from October to April in various coastal plains. As summer approaches, they move to upland areas where melting snow produces rich forage. Greek transhumants rely almost exclusively on sheep and goats; the nimbleness and size of these animals make them much better suited to the rough topography of the country than cattle.

Transhumance can take one of two very different forms. In some cases it involves nothing more than individual shepherds migrating with their flocks. Typically such shepherds are employed by large landowners who provide the animals and grazing lands. In other cases transhumance is a form of societal organization in which large, independent family groups migrate with and organize their lives around the care of their flocks.

While the latter form of transhumance is the more common and probably the more ancient, the earliest documented instance of transhumance in Greece is an example of the former. During the Mycenaean period (*c.*1600–1100 BC) Greece was divided into a number of kingdoms, each with a ruler and an elaborate bureaucracy. These rulers controlled very large numbers of sheep that were assigned, flock by flock, to individual shepherds. In return for sustenance provided by the royal household, the shepherd was responsible for tending the

animals assigned to him and for producing a specified amount of wool each year. Extant records indicate that the ruler of Crete owned 80,000 sheep which produced nearly 68,000 kg of wool each year.

This system of transhumance broke down with the collapse of Mycenaean civilization. The highly unsettled conditions that ensued were an ideal environment for group transhumance. The ability of transhumants to move out of the way of danger was an important aid to survival in a period of societal disintegration. In addition, the steep decline in population levels and in agricultural activity that marked the post-Mycenaean period made extensive areas of Greece newly available as pasture land. Animal bones from this period found at the site of Nichoria in the southwest Peloponnese show that the composition of herds differed from that found in the Mycenaean period in such a way as to increase the production of meat and milk and at the expense of wool production. This change reflects the transition from individual transhumants supported by the Mycenaean state to group transhumance and direct reliance on flocks for sustenance.

While the collapse of society and population levels encouraged transhumance in the years immediately after 1100 BC, the gradual restoration of society and rise in population levels that took place in the 8th and 7th centuries BC did the reverse. In settled conditions the advantages of mobility were considerably lessened. More importantly, the fact that herding, relative to agriculture, is a non-intensive land-use pattern that is capable of supporting a limited number of people meant that as population densities in Greece increased, so did the importance of agriculture. Even so, transhumance continued to be practised throughout antiquity. Sophocles' *Oedipus Tyrannus* (lines 1133–40), for instance, includes a scene involving two shepherds who spent summers with their flocks on Mount Cithaeron and then returned to lowland pastures in the winter.

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TRANSLATION FROM GREEK

Translations, together with adaptations and imitations, have been an important vehicle in the diffusion of Greek literature and thought. In certain instances, translations from the Greek represent the earliest examples of written literature. This is the case in particular with the Christian literature in Armenian and Georgian, where translations from Greek and Syriac played a formative role. Similarly, Roman literature is believed to have begun in 240 BC when a Greek schoolmaster named Livius Andronicus translated into Latin a tragedy, a comedy, and an epic, the last being the *Odyssey* which he rendered into Saturnian verse. New Comedy (and possibly Middle Comedy) provided the sources for the earliest literary comedies in Latin of which we have surviving examples by Plautus and Terence, on whose work we have to depend for our knowledge of many lost works by poets of New Comedy such as Philemon, Diphilus, and Menander. The plays of Seneca are the only surviving examples of Latin adaptations from the great Classical Greek tragedians. Latin poets did sometimes translate Greek lyrics, Catullus 51 being a well-known example; but no one today would wholeheartedly agree with Aulus Gellius who held that Virgil in his *Eclogues*, *Georgics*, and *Aeneid* translated Theocritus, Hesiod, and Homer respectively, his debt to these poets being best described as one of inspiration and imitation.

Most educated Romans were bilingual, and many of them endeavoured to make the literature and learning of the Greeks available to Romans by translation and adaptation of Greek works into Latin. Thus, Cicero translated the *Phaenomena* of Aratus, a Hellenistic didactic poem on astronomy (this work was translated once again in the 7th century). But the Romans, and especially their poets, were quite conscious of the limitations of the Latin language in matching the richness and subtlety of Greek (cf. the complaint of Lucretius in 1. 139 about the poverty of the language).

The Romans conceptualized the process of translation and established the framework and norms which endured in the west until the end of the 18th century. The younger Pliny (*Epistulae*, 8. 9. 1) recommends translation from Greek to Latin and vice versa as an exercise for developing verbal fluency and critical discernment. There was also advice against undue literalism. Horace (*Ars Poetica*, 133–34 tr. Dorsch) says:

> A theme that is familiar can be made your own property as long as you do not waste your time on a hackneyed treatment; nor should you try to render your original word for word like a slavish translator, or in imitating another writer plunge yourself into difficulties from which shame, or the rules you have laid down for yourself prevent you from extricating yourself.

On translating from Demosthenes and Aeschines, Cicero's advice is "not the words of the orators". "To explain not word by word but sense by sense", says St Jerome, who produced the Latin Bible known as the Vulgate.

During late antiquity translators into Latin concentrated mainly on science, military exploits, and adventures, and Christian works on theology, hagiography, and ecclesiastical history. Among scientific writings, the *Periegesis* of Dionysius was rendered into Latin by both Rufus Festus Avienus and Priscian. The gynaecological works of Soranus of Ephesus were translated by Mustio during the 6th century. The metrological treatise of Epiphanius of Salamis, written around AD 392, was translated in the 5th or 6th century. The alleged memoirs of Dares of Phrygia (6th century BC) and the story of Apollonius of Tyre are representative of military exploits and adventures. Translations

of hagiography began quite early: Athanasius' *Life of St Antony* appeared in Latin as early as AD 373, and the story of *Barlaam and Joasaph* was translated into Latin during the 11th century.

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TRAVEL

Long-distance travel was widespread in all periods of Greek antiquity. Already in the *Odyssey* we encounter itinerant experts, including seers, physicians, builders, and bards, who, as Homer tells us (17. 386), were "invited from the ends of the earth". Questions such as "Who are you? Where do you come from? What is your city? Who are your parents?", which occur frequently in the *Odyssey*, no doubt reflect the realities of Homer's own world where travel for military or commercial purposes was commonplace. In later times sophists and – a much larger category – mercenaries travelled extensively. In addition, many individuals occasionally made long journeys, either to attend a distant festival or celebration of the games, consult an oracle, or visit a healing sanctuary. It is unlikely that anyone ever undertook a long journey purely for pleasure, however. The most widely travelled Greek in antiquity was probably Herodotus, who in the 5th century BC visited Babylon, the Black Sea region, Egypt, and Phoenicia while researching his historical account of the Persian Wars, which is also the world's first travel book. The only guidebook that has survived is Pausanias' *Description of Greece*, written *c.* AD 150, which claims to describe "all things Greek".

Since no part of the Greek mainland is more than 100 km from the coast and since safe harbours abound, the most common method of long-distance travel as well as of transportation was by sea. Owing to the frequency of storms in the Aegean, however, seafaring was regarded as a dangerous undertaking. As today, it was largely confined to the months from May to October. In the winter very few voyages were undertaken, except in the case of an emergency such as that resulting from a desperate food shortage. A further hazard was piracy, which was endemic throughout the Aegean from early times onwards. Passenger ships were unknown and those who wanted to take a sea voyage would generally have had to stand on the waterfront and request a place on a cargo ship that happened to be travelling in the right direction, if not to their actual destination. No food or bedding was provided on board, so passengers had to come supplied with their own. The perilousness and unpredictability of the sea is a central motif in the *Odyssey*, since it is due to the wrath of the sea god Poseidon that Odysseus, who is returning home to Ithaca at the end of the Trojan War, loses all his companions and is delayed for nine years. Poseidon's enmity reflects a genuine paranoia about sea travel, notwithstanding its importance.

From early times the sea played a vital part in shaping Greek history and in moulding the Greek character. There is evidence of settlement in several of the hundreds of islands dotted around the Aegean already in the Early Bronze Age. Homer's world extended from Sicily in the west to the Hellespont in the east. It was surely due to their familiarity with this element that seafaring Greeks came to develop a flexible response to the challenges of the outside world. Almost all the most important city states possessed seaports and those that were landlocked remained conservative. The dichotomy is exemplified by the difference in character between the Athenians and the Spartans, the dominant powers in the Classical era. Whereas Sparta, an inland state, was reactionary and unenterprising, Athens, whose might and wealth were based on the sea, was innovative and progressive.

None of Greece's rivers is navigable and only a few have estuaries wide enough to serve as ports. Hence travel on the mainland was generally by road or track. Owing to the unevenness of the terrain, this tended to be slow, arduous, and difficult. Most people travelled on foot with a slave or two to carry their baggage because horses were not capable of travelling long distances or of negotiating the steep mountain paths that often provided the only means of access from one community to another. Likewise chariots and other wheeled vehicles were useful only over short distances. The island of Ithaca, which is described as "rugged and unfit for driving horses" (*Odyssey*, 13. 242), is typical of much of Greece and the suggestion that the road between Pylos and Sparta was sufficiently smooth to permit Telemachus to traverse it in a chariot is a sublime fantasy on Homer's part (*Odyssey*, 3. 482–86). Even so, horses remained important status symbols throughout antiquity.

It follows that in all periods up until the present day Greeks would have been accustomed to walking considerable distances. Socrates in Xenophon's *Memorabilia* (3. 13. 5) talks nonchalantly of undertaking a five to six days' walk from Athens to Olympia. Even though the distance from Athens' furthest demes to the capital is no more than 50 km, it is unlikely that its rural population would have regularly travelled to the city to attend meetings of the assembly, however. Probably women, the elderly, and the infirm hired wagons drawn by horses, mules, or oxen to convey them short distances, where the roads permitted. In later times a litter or sedan chair, known as a *phorelon*, was available to the wealthy.

The dangers of moving about in a world where no protection was offered to travellers gave rise to the image of the culture hero, whose task was to clear the roads of brigands and wild beasts. Examples include Theseus and Heracles. One of the brigands eliminated by Theseus was Sciron who, after robbing travellers, ordered them to wash his feet before kicking them over a cliff into a ravine below. Though we hear of highwaymen only occasionally, they must have presented a constant danger on land, as did pirates on the high seas. To safeguard the interests of their compatriots, many states appointed officials called *proxenoi* in foreign cities. *Proxenoi* were resident aliens who lived permanently abroad.

In times of emergency a city might call upon the services of a professional runner to bear a message to an ally. The stamina of such runners was prodigious. A famous example was the Athenian Pheidippides, who according to legend ran from Athens to Sparta – a distance of 240 km – to request military assistance against the Persians in 490 BC. Pheidippides then ran a similar distance to Marathon and followed up this feat by running to Athens, whereupon, after delivering his report of the Athenian victory, he expired. In the Hellenistic era the Greek kings took over the highly efficient network of roads and communications maintained by the Persians throughout their vast empire.

A number of Greek roads that were used in historical times had their origins in the Mycenaean period. Very few were paved, but the Greeks developed a number of sophisticated roadbuilding techniques. These included ramps, switchbacks, and pulloffs, for which there is evidence already in the archaic era. All roads, however, were local, their purpose being to facilitate travel within a state's territory rather than to join communities to one another. Mule and drovers' tracks provided the only link between communities. It was common to bury the dead in family plots adjoining major roads, for which reason epitaphs frequently address the wayfarer.

Many sanctuaries were served by sacred ways, though these usually extended only a short distance. As Pausanias reports, however, even an international sanctuary like Delphi was difficult to approach on foot. The principal paved road in Athens was the Panathenaic Way, which began at the Dipylon Gate on the west side of the city and ended up on the Acropolis, barely 1.5 km away. A more functional paved road extended from the marble quarries on Mount Pentelikon to Athens. Goods were conveyed to and from the port of Piraeus along a paved cart road. During the Peloponnesian War, when it was no longer safe to travel outside the city, a road running the entire length of the Long Walls joining Athens to its port served in its place. The most impressive road-building project in Greece was the *diolkos* or slipway, which was constructed by the Corinthians in around 600 BC. The *diolkos* enabled ships to be towed across the isthmus of Corinth, rather than having to circumnavigate the Peloponnese. It remained in use until the 9th century AD.

Though Agamemnon supposedly conveyed his mighty army to Troy by sea, in historical times armies travelled to the theatre of war by land. Homer's warriors are usually conveyed to the battlefield in chariots, though they fight almost exclusively on foot. Their chariots remain parked while their owners engage, ready to provide a means of escape if their owners are forced to retreat or when they go off in search of a new opponent. Cavalry, though frequently mentioned in our sources, played a relatively minor part in Greek warfare.

In the absence of inns and hostelries, aristocrats in the Archaic period operated a system known as guest-friendship or *xenia*. This facilitated long-distance travel by providing hospitality on a reciprocal basis. The guest-host relationship was judged to be so sacred that its supervision was placed under the protection of Zeus Xenios. Homer suggests that guest-friendship transcended what passed for national boundaries. In the *Iliad* (6. 230f.) the Greek Diomedes and the Trojan Glaucus refuse to fight against one another once they have discovered their parentage "so that everyone will realize that our families have provided hospitality for one another in days of old". Not until the 5th century BC do we hear of facilities offering accommodation for travellers. These remained basic throughout antiquity. Even in a major commerical centre like the Piraeus, accommodation was limited. Aristophanes (*Frogs*, 112–15) indicates that its inns had a reputation for discomfort and bedbugs. By the middle of the 5th century BC the lack of decent facilities led Xenophon (*Revenues*, 3. 12) to recommend the construction of more facilities, though whether his advice was followed is not known. By the Roman period the situation seems to have deteriorated further. Cicero (*Letters to Friends*, 4. 12. 3) states that when a certain Servius Sulpicius journeyed to the Piraeus to collect the body of a friend, he found the latter stretched out under a tent, evidently because he had been unable to find more suitable accommodation in the port. Throughout antiquity the wealthy continued to find hospitality in one another's houses or brought tents and other gear in their entourage.

Under Roman rule the provinces of Macedonia in the north of Greece and Achaea in the south became linked by an efficient network of roads like the rest of the empire, with Thessalonica, Athens, and Corinth representing the principal hubs. The most important road in the region was the Via Egnatia, which ran in an east–west direction through Thessalonica, parallel to the northern border of the empire. It was strategically important in the late Republic at the time of the Civil Wars but declined in military significance from the 1st century AD onwards when the frontier moved north to the river Danube. In this period, too, Roman tourists began to visit Athens and other major sites. The first guidebook on Greece, which was essentially limited to the province of Achaea, was written by Pausanias (fl. AD 150).

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See also **Tourism**

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TREBIZOND

City on the southeast coast of the Black Sea

Trebizond is the English name for the Greek Trapezous, modern Turkish Trabzon, a city in the Pontus, on the southeastern shore of the Black Sea. The port was a Greek colony, daughter of Sinope and granddaughter of Miletus, from the 7th century BC (its traditional foundation date of 753 BC is much too early). Historically Trebizond owes its importance to two factors. First, as Xenophon found as early as 400 BC, it is the political capital of a distinct and persistent local identity, a combination of indigenous, especially Caucasian (including Laz), people and of Greek colonists and culture (Pontic Greek is one of the oldest spoken examples of the language). Second, Trebizond is the furthest port east through which European shipping could once reach an overland route that penetrates Central Asia. This combination of factors made Trebizond both a local provincial capital and, intermittently, a port of intercontinental strategic and commercial importance. The periods of the city's commercial importance (especially from 1258 to 1475 and from 1829 to 1869) coincided with its local autonomy (particularly under the Grand Komnenoi, emperors of Trebizond from 1204 to 1461) and with the patronage of most of its major monuments.

The city basically consists of two settlements, hemmed between the sea and Mount Minthrion (Boz Tepe). On the west is a naturally defensive site, wedged between two deep ravines that narrow to an acropolis 1 km inland, on which the Upper City

bears the accumulated masonry of an administrative citadel and palace of the Grand Komnenoi. Below it the Middle City is dominated by the domed basilican cathedral of the Chrysokephalos, remodelled as a coronation church in the 13th century, now the Orta Hisar Camii and principal mosque of Trabzon. Trebizond was an episcopal see from the 3rd century AD and Justinian dedicated its aqueduct to St Eugenios, its patron martyr. The Lower City reaches the sea to embrace an artificial harbour, the Molos, plausibly attributed to the emperor Hadrian (AD 117–38).

The second settlement lies about 1 km cast of the walled city and acropolis, around the commercial harbour of Daplnous. Trebizond appears to have lacked many of the conveniences of a Hellenistic city, such as a theatre, although the cathedral probably stands on the site of a temple. But the modern street plan that links the city with the eastern suburb reveals a Milesian or Hippodamian grid, such as in Sinope, Histria, and Cherson, of blocks of about 100 ¥ 60 m, complete with a *cardo*, or main street. Four empty blocks suggest an agora, today the *meydan* or main square of Trabzon, around which all the Classical inscriptions have been found. This open space overlooking Daphnous is the oldest monument of Trebizond in continuous use; it became the supply base of the Roman campaign against Armenia in AD 58, from AD 64 of the legion XV Apollinaris, stationed at Satala (Sadak), of Justinian's 6th-century Laz and Persian wars, and of 9th- and 10th-century Byzantine campaigns on the eastern frontier, when Trebizond was capital of the theme of Chaldia. From the 13th century it became the ceremonial square of the Grand Komnenoi and assembly point of caravans going south. Venice and Genoa built their own castles on the seaward side – the latter, Leotokastron (now Güzel Hisar), rivals that of their host emperors. The *cardo* (now Meraş Caddesi) remains the principal commercial quarter and bazaar of the city. The overland route to Tabriz, 32 staging posts away, reaching eventually to Central Asia, was already in decline after the break-up of the Mongol and Timurid empires before sultan Mehmet II conquered Trebizond in 1461. The *meydan* was reanimated after 1829, when western traders returned to exploit the overland route to Persia, but declined after 1869 when the Suez Canal offered a more convenient alternative. Trebizond is not a convenient port. Although Daphnous faces east, before the 20th century all goods had to be beached or taken ashore by double-ended lighters, including the first Ford motor car, rowed ashore in 1921. Until then pack animals assembled in the *meydan*; today the stables on its corner have been replaced by the garage of the Ulusoy Bus Company. Marco Polo was not the last to mislay his luggage on the square.

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See also **Pontus**

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TRIKKALA

City in Thessaly

Trikkala has had a long and varied history. As Trikka or Trike it appears in the *Iliad* as the home of the sons of Asclepius, one of whom, Machaon, was the chief physician of the Greeks. There are signs of Mycenaean and early Iron Age settlements in the area. In Classical times the town did not figure very prominently, situated as it was in a remote part of Thessaly, itself on the periphery of the Hellenic world. It appears occasionally in inscriptions. There is a shrine to Asclepius in the area. In 352 BC it suffered during the war between the Phocians and Philip of Macedon. It played a part in the wars between Rome and Macedon and that between Caesar and Pompey, occupying a strategic position at the foot of the high Zygos pass that provides the only route between Epirus and Thessaly.

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See also **Thessaly**

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TROJAN WAR

The Trojan war was a legendary expedition undertaken by the Mycenaean Greeks against the people of Troy, the modern Hisarlik which lies in northwest Asia Minor, 6.5 km from the Aegean coast. This military operation was made famous mainly through the *Iliad* and *Odyssey*, two epic poems attributed to the Archaic poet Homer.

Hisarlik's identification with the Homeric Troy has never been proved, but it is generally assumed that the legends relating the Trojan War also encompass elements of historical truth. It is plausible that the Mycenaean Greeks could have destroyed Troy between 1270 and 1190 BC; Troy VIIa – which lasted until 1190 BC – is considered by Garl Blegen to be the Homeric city, but others push the date of the sack back to *c.*1270 BC, the time that coincides with the peak of power of both Mycenaean Greece and Troy. According to Thucydides, the Achaeans' sack of Troy led to no permanent settlement in the Troad; instead the Greeks returned home with their plunder to face destructions connected with the Dorian invasion, which put an end to the Mycenaean period.

Neither the *Iliad* nor the *Odyssey* gives a comprehensive account of the events related to the Trojan War. The *Iliad* concentrates on only four days of fighting in the tenth and last year of the war and its major theme is Achilles' anger over Briseis, who was given to him as booty and subsequently taken away from him by Agamemnon. The *Odyssey* includes consecutive flashbacks of Odysseus' adventurous trip home, and its second half is devoted to Odysseus' cunning restoration of order in Ithaca.

Several other aspects of these events were covered by the cyclic epics, subsequent hexameter poems reproducing the repertoire of the oral bards and indicative of the heroic poetry before Homer. Among them, the *Cypria* narrates the causes of the Trojan War, the judgement of Paris, the abduction of Helen, and the gathering of the Greeks in Aulis; the *Aethiopis* recounts the story of Amazon Penthesileia and the death of Achilles; the *Sack of Ilium* deals with events connected with the Greek victory such as the ruse of the wooden horse and the deaths of Priam and Astyanax; the *Telegonia* narrates the later adventures and the death of Odysseus.

The Trojan War is widely represented on Greek vases, sculpture, and architecture. Among the earliest Archaic representations of scenes from the Trojan War are the wooden horse on the 7th-century pithos of Mykonos (still in situ), the pediments of the temple of Aphaia Athena in Aegina, and several black-figure vases from Athens and elsewhere. Famous later representations include the metopes from the north side of the Parthenon and the temple of Asclepius in Epidaurus.

Subsequent Greek literature gives centre stage to the Trojan War. Both Herodotus and Thucydides attempt to provide rational accounts of the war, but Stesichorus' famous *Palinode* and Sappho's ode to Helen's passion for Paris (fr. 16 L-P) are indicative samples of the poets' early fascination with the legendary beauty of the queen of Sparta. Helen, the dehumanizing power of the war, and the ambiguities of military heroism are also some of the main themes developed further in the Athenian tragedies of the 5th century BC. Famous among those surviving are Aeschylus' *Agamemnon*, Sophocles' *Philoctetes*, and Euripides' *Hecuba*, *Andromache*, *Troades*, and *Iphigeneia in Aulis.* In post-Classical times *Hecuba* was one of the three tragic plays of the Byzantine academic canon. In early modern times the earliest attempts at the revival of tragedy include P. Katsaitis' *Tragedy of Iphigeneua* (1720) and Metastasios' *Achilles en Skyro* from the period of the Greek Enlightenment (1974).

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TYRANNY

The word "tyranny" was almost certainly Lydian in origin. From its first use in Greek – in a fragmentary poem of the 7th century BC by Archilochus of Paros – it was associated with the kingdoms of the Near East. The speaker in Archilochus' poem denies any ambition for the wealth of the Lydian king Gyges or for a great tyranny: "these things are far from my eyes". The term was subsequently applied, however, to a number of Greek figures – Pheidon of Argos, Polycrates of Samos, Cypselus and Periander of Corinth, Cleisthenes of Sicyon, Pisistratus and Hippias of Athens – who came to exercise dominant positions within their cities in the Archaic period of Greek history (7th to 6th centuries BC). These men were, characteristically, fringe members of a ruling elite of their city who took power with the help of a faction of supporters. In some cases it is possible that they represented a body of those who felt excluded – due to their status or their geographical position within the city's territory – from the political constitution. The common view, however, that the Archaic tyrants were the product of a newly wealthy class of hoplites (or heavily armed soldiers) who felt that their contribution to the city merited a share in its political offices, is, at the very least, a caricature. Many tyrants seized power with no sign of any great ground-swell of support, sometimes with only a handful of men. Arguably tyrants were motivated by little more than a desire for glory and power.

There are some signs of the contemporary popularity of the Archaic tyrants. Stories of miraculous escapes from death or of their usurpation being forecast by miracles may suggest that their rule was seen as divinely sponsored. Later writers often dwell on the mild and constitutional nature of tyrannical rule: tyrants are seen as exercising an excessive influence on the selection of magistrates but allowing such magistrates to rule according to the constitution of the city – even though such constitutions were themselves probably very ill defined. Tyrants seem often to have initiated massive building projects; such largesse must have bought them popularity. Tyranny, nevertheless, came to be seen as archetypally unconstitutional, often contrasted with kingship, the archetypally constitutional form of monarchy. This view of tyranny was first defined in theoretical terms by the historian Herodotus in his *Debate on the Constitutions*, a discussion between three Persians, shaped also by a stereotypical image of oriental kingdoms, on the relative merits of oligarchy, democracy, and tyranny. The tyrant, according to the Persian Otanes, "disturbs the ancestral laws, rapes women, and kills men without trial"; the unaccountability of a monarch will necessarily breed hubris and violence. Stories abounded of the crimes of tyrants, perhaps most colourfully of the bronze bull in which Phalaris of Acragas roasted his enemies.

Though some such stories may have a historical kernel, to a large extent they probably derive from the backlash subsequent to the fall of a tyranny. Tyrannical rule rarely lasted more than two generations. Inherited rule seemed perhaps more patently unjust. Stories of cruelty tend to be focused on the second rather than the first generation. In some cities – Corinth is the most prominent example – tyranny was replaced by a broader oligarchic clique. In Athens, however, the city for which there is the best evidence, tyranny was followed by democracy. The idea of tyranny indeed seems to have been defined in opposition to the ideal of accountable, democratic government. When the early 6th-century BC Athenian reformer Solon had warned of the threat of tyranny in Athens, he seemed to conceive that men might aspire to tyranny. The imaginary tyrant was an

ever-present bogeyman of the democracy. The institution of ostracism (a period of ten years' exile imposed on leading politicians) was probably introduced, for example, as a safeguard against the excessive power of individuals in response to the expulsion of the Athenian tyrants. The charge of aiming for tyranny was one that was frequently laid against Athenian leaders, most famously Alcibiades.

The distinction between tyranny and democracy took on an additional sharpness of focus, and a patriotic gloss, in the light of the Persian Wars fought between the Persian kings Darius and Xerxes and the cities of Greece (490–479 BC). The Persians had been responsible for maintaining a number of petty tyrants in power within their sphere of influence in Asia Minor. The association of tyranny with the Persian enemy was ensured in Athens by the participation of Hippias, the expelled Athenian tyrant, in the Persian campaign that culminated in the battle of Marathon (490 BC). Already in Aeschylus' play the *Persians*, performed in 472 BC, the superiority of the Athenian system of government is seen as a crucial factor in the Greeks' victory. Like the tyrants of Archaic Greece, Darius, Xerxes, and subsquent Persian kings down to Darius III (the defeated opponent of Alexander the Great) were portrayed in an almost consistently lurid light: whimsically cruel, sexually decadent, surrounded by powerful queens and a population of slavish "yes-men".

In addition to the Archaic tyrants, another group of rulers are commonly referred to as tyrants: Gelon and Hieron of Syracuse in the 5th century BC and Dionysius I and II in the 4th. These Classical tyrants are usually seen as being very different in character from their Archaic counterparts: essentially military dictators, in the size of their power bases they preshadowed the rule of the Hellenistic kings who followed on from Alexander's conquest of the Near East. But just as in the case of the Archaic tyrants – where, however, the simultaneous appearance of so many figures lends the group an artificial coherence – tyranny is essentially in the eye of the beholder, an accusation rather than a position. The charge of tyranny was one that could even be turned against Athens. The Athenian writers Aristophanes and Thucydides (as well as the pamphlet often known as the *Old Oligarch*) reflect in their work the idea that the Athenian dominance over their allies in the 5th century BC also constituted a tyranny. A compelling argument makes out that Herodotus, writing his *Histories* in the early years of the Peloponnesian War, draws parallels between the empires of the Athenians and the Persians before them.

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U

UKRAINE

It is now thought that Greeks from Miletus first settled in the Ukraine in the course of the 6th century BC, though a century earlier has been claimed. Settlement was either coastal or along the banks of the major rivers of the region and their estuaries. By about 550 BC the town of Olbia was established near the modern village of Parutino, on the west shore of the estuary of the river Bug (the Greek Hypanis), when an agora and religious precinct were laid out. Numerous minor Greek settlements fringed the whole estuary around Olbia, while the islet of Berezan just beyond the mouth of the estuary had been settled at the same time as Olbia itself, if not a little earlier. The island was named Borysthenes by the ancient Greeks, as was the great river Dniepr which emptied into the Black Sea immediately to its east, beside the Bug. The name Borysthenes was also attached to Olbia itself, especially in more literary accounts of the town, such as that of Dio Chrysostom, composed about AD 100 (*Oration* 36). Dio's gloomy account is not to be taken at face value, as archaeology now shows: it is designed to make a philosophical argument about civic culture and harmony, for presentation at Prusa in northwest Asia Minor. Later, in the 10th century, the Byzantine emperor Constantine VII Porphyrogennetos (913–59) in his famous survey of his realm looked upon the Dniepr as the principal highway to the first Russian state, the Rus of Kiev, and beyond as far as the Baltic. It was down this river that furs, amber, and mercenaries came into the Byzantine world, including the Varangian bodyguard of the emperor himself.

The hinterland of the Crimea was a continuation of the Ukrainian steppe to the north: Greek settlement followed its coast. The largest Greek cities were Chersonesus (modern Sebastopol) in the southwest Crimea and the cities of the Bosporan kingdom that formed its eastern part, especially Panticapaeum (Kerch) and Theodosia. Recent work has indicated Greek settlement also on the northeast coast, on the shallow Sea of Azov, which was dominated by the Bosporan kingdom as far as the Don (the Greek Tanais). The Greeks reasonably treated Azov as a lake and named it Maiotis.

Chersonesus offered excellent harbours, but seems not to have been established as a Greek settlement until about 422 BC, when settlers came from Heraclea Pontica. No doubt the local Tauri, famously ferocious, were a main reason for earlier neglect of the site. It was here that Euripides set his *Iphigeneia in Tauris*, first performed in Athens about 412 BC and a very popular theme in art thereafter. Euripides' version of the myth stresses that the cult of Artemis at Halai Araphenides (modern Loutsa in Attica) took its origin and ritual from the Taurian form of the cult.

Theodosia was founded by Milesian Greeks in the 6th century BC on the southeast coast of the Crimea; for the Byzantines it was Theodosioupolis, and later for the Genoese the great trading port of Kaffa. In the 4th century BC much of the grain imported into Athens seems to have come from Theodosia and its hinterland. At the eastern extremity of the Crimea lay Panticapaeum, the capital of the Bosporan kingdom. It too was established in the 6th century BC by Milesian Greeks. About 438 BC the Spartocid dynasty formed the Bosporan kingdom, which embraced both the eastern Crimea and the Taman' peninsula across the straits of Kerch to the east. It was to last into the 3rd century AD. Pericles, who led an expedition to the Black Sea in the 430s BC, may have played a role in creating the dynasty. Certainly, Athens subsequently developed close social and economic ties with the kingdom, whose rulers could even receive Athenian citizenship in the 4th century BC. Although Bosporan rulers had other cultural allegiances (Iranian and perhaps Thracian), the language and principal culture of their realm were firmly Greek throughout its history.

Across the whole region and through most of their history Greek communities of the Ukraine had to come to arrangements with local populations who were often nomadic – Scythians, Sarmatians, Goths, and others. For the most part, the Greek literary tradition stresses hostility with these peoples, while epigraphic and archaeological evidence reveals also more friendly or at least structured interaction and exchange, including formal treaties. The great ramparts across the breadth of the eastern Crimea, with which the Bosporan kingdom shielded itself, indicate the significant threat of assault by land. However, in surveying the region in book 4 of his *Histories*, Herodotus observes the existence of Scythian–Greek intermarriage and mixed populations, as near Olbia. He also describes a Hellenized settlement in the Ukrainian hinterland (perhaps

modern Bel'sk), settled by the Geloni, whom he regards as of Greek descent, but as in his day speaking a language that is a mixture of Scythian and Greek (4. 108–09). No doubt Greeks of the region mediated exchange between the Scythians and the Aegean world: it was presumably through the Greek settlements of the region that the Scythian archers came who maintained public order for 5th-century Athenian democracy. For the Greeks of the Aegean the whole region was a reservoir of resources (slaves, grain, leather, and other goods).

From the perspective of the mainland Greeks the Ukraine was viewed as significant also for its peculiar geography and climate. The flat grassy steppe was contrasted with Greek landscapes, while the great rivers of the region had few parallels among the rivers of Greece. The climate was imagined as very cold, rather colder than it was in fact. The medical writers in particular viewed the region as a source of enlightenment about the effects of severe cold on the human body, for example in reducing fertility. The fate of Greeks in the Ukraine in modern times replicates that of Georgia.

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See also **Colonization; Georgia**

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URBANIZATION

When Aristotle famously described man as a political animal the strict meaning of the Greek – *politikon zoon* – is "an animal that lives as part of a polis", that is, a member of what is usually translated as a "city state". Latinized he would be an urban creature. The implication is that urbanization, the forming of cities, is the natural way of life for a Greek community. In its simplest form, this is true. In both ancient and modern Greece people prefer to live together, forming communities, rather than isolated in individual homesteads. An obvious original reason for this is the need for security; isolation is potentially dangerous, particularly in unsettled times. On top of this, though, come the social reasons: the need to belong, to be part of the whole, rather than a self-contained individual. Human fulfilment required the larger grouping.

This in turn requires an understanding of the communities, the poleis. There is no implication of great size. Many of the city states in Classical Greece are more readily defined as villages, rather than cities in the sense of modern urban sprawl, while at the same time the population was not necessarily concentrated in a single urban centre; in the largest of them, Athens, the majority of the citizens lived not in the city of Athens, as defined by its encircling fortifications, but in outlying villages scattered throughout the various regions of Attica. It was the village that formed the essential starting point. It was from this that urbanization, in the strict sense, started.

Urbanization was a response to the political condition of the times. The earliest urban communities of Greece developed in the Middle and Late Bronze Age, initially in Crete. They vary in size, from Gournia, no more than a village in modern terms, to the much larger (and still mostly unexplored) communities at places such as Knossos. All centred on the architectural complexes usually termed palaces, presumably the residences of monarchs but including the administrative (in all senses), economic, and religious functions that their owners represented. Similar urban groupings, some much larger then the Cretan examples, are, of course, found in the Near East at an even earlier date; there is every likelihood of direct influence on Crete, just as in the same way the Cretan examples influenced similar developments in mainland Mycenaean Greece. What is uncertain, in what is essentially a prehistoric context, is the relationship between the palaces and the urban areas surrounding them. Some of the "villas" or "mansions" (terms applied by the archaeologists who have explored them) round the palace at Knossos are substantial and opulent, but it is unclear whether they were "official" buildings or the residences of well-to-do individuals. Similarly, houses outside the palace at Mycenae have been attributed to merchants, though again the ownership is unclear.

What is certain is that with the destruction of the palaces and their organization the urban centres collapsed; in the succeeding Dark Age it is assumed – there is little archaeological evidence – that a village pattern resumed. Some of these villages were the settlements of newcomers. Those that coalesced into the city state of Sparta, which retained their village form long into the Classical, historical period, are a good example. Others were formed by survivors from the earlier populations, and for these, in mainland Greece, the heavily fortified citadels that surrounded the sites of the former palaces often became the urban nucleus. Some (Mycenae) hardly outgrew their citadel. Others (Athens) from an early date spread over the lower ground below the Mycenaean citadel walls of the Acropolis. It was all this that developed as the urban centre

for the enlarged city state, which came to include the other villages of Attica.

Thus in Classical Greece urbanization meant the provision of an urban centre rather than simply a place of residence for an enlarged population. Compared with a modern city, a much greater proportion of the area within a city's defined boundaries was devoted to public building, religious, economic, administrative. It included places, which may or may not be actual buildings in the architectural sense, where the citizens could gather for political or religious purposes. The central "gathering place", the agora, in Athens was the place where in the 5th century BC the citizens collected when they voted to banish (ostracize) politicians who had lost their favour, while on the adjacent hill of the Pnyx was the open-air location for the political assembly, the Ekklesia. Those who attended came from the whole of Attica, not merely the city itself. Within the urban area the Acropolis (now demilitarized, the city fortifications instead now including the whole town) formed the gathering place for the entire population of Attica when they came to worship Athena at her annual festival. With the growth of wealth and the desire for prestige that came with it, the city was embellished with fine buildings, to modern thinking completely out of scale compared with the size of the actual population dwelling within the walls.

A further stage in urbanization was the deliberate, planned construction of cities. This started in the colonies that the Greeks founded overseas, where the settler community was concentrated in the urban centre, the outlying land being allotted to them, often with non-Greek inhabitants to work it for them. Such artificial cities are easily recognized by the use of a regular grid plan for their street system, facilitating the allocation of equal-sized individual plots to the settlers. Himera, in Sicily, is an excellent example of such a city. The concepts involved in this were elaborated into theories of urban planning and the proper form a city should take, with the emergence of individual town-planning experts, the most famous of whom was Hippodamus of Miletus. He may have been responsible for the planning of his native city when it was recreated after its destruction by the Persians; he certainly planned the new harbour city of the Athenians at Piraeus. The basis of his theories was the inevitable grid plan of streets, but planning extended also to the proper location of the different areas and structures a city requires.

Thus during the 5th and 4th centuries BC a new category of urbanization developed, the deliberate bringing together of people from a wider area and its villages into a large, planned urban centre. The motives were various, but the underlying purpose was to create more powerful communities. The city of Rhodes, formed by the amalgamation and transfer of population from three older poleis, Lindus, Ialysus, and Camirus, embraced a large area within strong fortifications, though it seems never to have been fully built up. Other cities were moved to new, planned sites, such as Priene and Cnidus, these perhaps at the behest of a foreign ruler, Mausolus of Caria. By the 4th century BC urbanization, often on a substantial scale, was considered an ideal; it formed a crucial element in propelling backward areas, such as Macedon, into the forefront of up-to-date powers, even if politically they adhered to the older concept of monarchy. A culmination comes with the laying out of Pella as the Macedonian capital. Here urbanization created a spacious city, with broad streets, proper drainage and water supplies, and opulent houses. No doubt it represented a considerable improvement in the standard of living for the people who came to inhabit it; at the same time they were content with a regime that controlled them, rather than a political system under which they governed themselves.

So the Greek city was transformed from a political to an urban organization. In the Hellenistic period, and following the conquests of the Macedonian Alexander the Great, this was extended, and many more urbanized places were organized. Some of these were too artificial, too remote from a natural raison d'être, and failed (though one of the remotest, Aï Khanum in Afghanistan, was remarkably successful). Others prospered. In Greece itself Cassander's foundation of Thessalonica was one of the triumphs of the urbanization movement. In the newly conquered areas the greatest of the Alexandrias founded by Alexander the Great, that "next to" (rather than "in") Egypt, to use the official nomenclature, became one of the greatest cities of the whole ancient world. Urbanization was a policy that was synonymous with the concept of Greek political superiority and domination.

Even after the collapse of the Hellenistic monarchies, the Romans continued the policy of urbanization, using the cities as an essential method of local political control, extending the policy to the non-Greek parts of their empire. The Hellenistic and Roman periods thus saw the apogee of Greek urbanization. The cities played a vital role in the political and economic order of things, and were rewarded accordingly. Where the Classical cities had built for the gods, the Hellenistic and Roman cities built for man; or at least, those men who were privileged to be part of them. Public buildings were constructed on a magnificent scale. The agoras were lined all round with stone colonnades (stoas), behind which were shops, offices, rooms for dining and feasting. Each city had its theatre; its gymnasia – which became places of education – were no longer mere open fields, but colonnaded courtyards, with assembly rooms and running courses (that at Cyrene roofed to provide shade from the African sun). Streets were wide, and paved; in late Hellenistic and Roman cities they were monumentalized with long lines of columns. Water supplies were, where necessary, piped in (Priene affords a 4th-century BC example of this), or, where suitable springs were not available, stored in specially built and often cavernous cisterns (Alexandria). Much was done at the expense of the kings and the Roman emperors who succeeded them. Where cities fell back on their "own" resources, this often meant the pockets of the well-to-do, from whom lavish public expenditure was an expected duty.

In many senses the heyday of Greek urbanization was the 2nd century AD; the worsening conditions of the 3rd century brought an end to much urban development (it has been suggested that excessive expenditure on urban amenities hastened, or even created, the economic collapse of the mid-3rd century AD). Even so, the concept of the urbanized ideal continued, so that when the emperor Constantine founded his New Rome at Constantinople, it was conceived on the grand urbanized scale, with the same lavish amenities, as in earlier times. Constantinople flourished as the new imperial centre. Other Greek cities declined, impoverished by the Byzantine financial system, or the victims of political change. A few survived right through the Middle Ages, though often much

reduced, such as Thessalonica. But even the greatest, Alexandria, dwindled to a small town, though the ghost of its vast Hellenistic grid plan was still discernible in the sands as late as the early 19th century. Under the Turks, Athens was a small, squalid town huddled against the north slopes of the Acropolis.

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See also **Cities; City State**

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V

VERROIA

City in Macedonia

This large town of south central Macedonia is one of the few in the region that has enjoyed a more or less continuous existence from antiquity to the present day and has retained its original name over the centuries (the same is also true of Thessalonica and Serres). Verroia stands on the site where it was originally founded, i.e. on the slopes of a hill at the eastern extremities of Mount Vermio, overlooking the vast coastal plain of central Macedonia. In antiquity Verroia lay much closer to the sea than it does now, for the Thermaic Gulf extended so far inland as to include the area of the future lake of Giannitsa. Located in the heart of Macedon, in the neighbourhood of the royal residence and cemetery of Aegae (modern Vergina, where the tombs of the Argead dynasty have been excavated), Verroia was already in existence in the 5th century BC, if not earlier, and was one of the main urban centres of the ancient Macedonian state. The town's name is believed to derive from Veres, a hero of the Macedonian religious tradition.

Being the birthplace of Antigonus I, the renowned general and one of the successors of Alexander the Great, Verroia was particularly favoured by his descendants who ruled in Macedonia as the Antigonid dynasty between 294 and 288 BC and from 277 BC to the end of the Macedonian kingdom in 168 BC. The town's prosperity continued during the Roman era, when Verroia is attested as a place of significant commercial activity and also the centre of the *concilium* (*koinon*) of the Macedonians, an ethno-religious league of the Macedonian towns and districts under Roman rule. A Jewish mercantile and artisanal community existed there by the 1st century AD, a face that attracted St Paul to visit the town and preach there. The only obscure period in Verroia's history coincides with the so-called Byzantine dark age (7th and 8th centuries). The serious demographic crisis and urban decline that mark the Byzantine Balkan provinces during that period must have affected life in Verroia and the development of the town. This probability is supported by the absence of any record of the town's existence for that period, and also by the fact that the surrounding district was occupied by the Slavic tribes of the Drogouvites and Sagoudatoi that were independent for a long time and had uneasy relations with the Byzantine authorities.

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See also **Macedonia**

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VILLAGE SOCIETY

The first traces of permanent human settlement on the Greek peninsula date back to the early Neolithic era, long before its penetration by Greek-speaking tribes around the end of the 3rd millennium BC. Archaeological excavations have revealed remains of permanent settlements of agriculturalists and sedentary pastoralists consisting of densely built single-room habitations surrounded by gardens. Their burial customs indicate a society organized in clans, while the absence of sizeable buildings denotes an egalitarian society without centralized forms of government or administration. Excavations of large private buildings of the Bronze Age with ample storage areas and numerous yards possibly designate the emergence of social stratification.

As we advance into historical times, social stratification became increasingly complex as did the interrelations between the different echelons of the social ladder. The formation of the city state in the 8th century BC, in particular, defined a situation where villages became dependent on urban centres. Village society at the time consisted of independent households of free peasants. The family unit was the economic and social nucleus of a society whose economy depended on agricultural

production. However, the majority of peasants were owners of small plots of land that were often insufficient for the subsistence of the household. While peasants were faced with poverty, large landed properties began to form, increasing the social distance between villagers and aristocrats. Peasant contributions, furthermore, were appropriated by the aristocracy, who thus augmented their wealth.

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VINE

Viniferous species of grapes (*vitis vinifera sativa*) were known to the Mycenaean Greeks. The mythological account of Dionysus' importation of the vine from Asia Minor, the evidence of wine on the Linear B tablets, and the remains of storage vessels make it clear that by the 2nd millennium BC grape growing was firmly entrenched on the Greek mainland.

Yet only with the rise of the polis (800–300 BC) did domesticated cultivars, which produce larger and better-quality fruits, become truly ubiquitous. The Classical Greeks planted vineyards from the Black Sea to Crete, and from southern Italy to northern Asia Minor, where, along with olives and grains, they became part of the great triad of Greek agronomy – an agricultural diversity that helped to make the ancient rural household self sufficient and the city state prosperous. Vines could grow well on difficult terrain and produce on poor soils; they were resistant to extremities of temperature and humidity, and provided the farmer with in-season fresh fruit and juices, storable raisins, and non-perishable wine. That versatility of the grape prompted the 7th-century BC poet Alcaeus to advise: "Plant no other tree before the vine."

The wide variety of soil and weather conditions in Greece and Italy allowed for regional specialization, as the Aegean islands, the bay of Naples, and Rhodes earned a Mediterranean-wide reputation for premium vintages. There is some practical advice found in Greek agricultural writers such as Theophrastus on establishing the vineyard, but the full sophistication of the Greek art of viticulture can be appreciated only in extant and derivative Latin texts such as Cato, Columella, and Varro. It is clear from these authors that the Greeks translated empirical observation into a more abstract and theoretical knowledge of the proper combination of climate, soil, and vine species necessary to produce premium grapes. Such scientific treatises attest to the Greek mastery of viticulture from the arts of vine trellising, fertilization, pruning, and pest management to the intricacies of wine pressing and processing – a level of expertise not surpassed until the 19th century with the rise of bacteriology, soil chemistry, and plant biology.

The polis Greeks saw viticulture as emblematic of Classical culture at large, whose stable populations, local councils, sturdy yeomen, and fiercely independent rural communities were the natural dividends of the time, patience, expertise, and investment necessary to grow good grapes. Thus vine growers are idealized as dependable, though crusty sorts, in the comedies of Aristophanes and Menander. The livelihood of entire communities might depend on the success of the autumn vintage, and during wartime it was a crucial factor in state policy. In Thucydides' history, for example, the small north-east-Greek city state of Acanthus sued for peace when its grape harvests were threatened by Brasidas and his Spartan invaders; similarly the Acharnian viticulturalists outside Athens were especially critical of the Athenian leaders when their vineyards were left unprotected before the annual Spartan invasions of Attica (431–425 BC).

In Hellenistic and Roman times, agriculture in general and viticulture in particular in the Greek world became increasingly divorced from the Classical ideal of agrarianism and evolved more into a cash enterprise, where large absentee estate holders, through the use of slave gangs and skilled overseers, grew grapes aimed at particular specialized wine markets, often at great distances and throughout the Mediterranean. Athenaeus (*c.*AD 200), for example, provides a comprehensive catalogue of choice regional wines that attests to the sophisticated commercial nature of Greek viticulture in Roman times. Yet even as exports grew, viticulture ceased to be part of a vibrant countryside, which for the most part suffered continual depopulation due to emigration, banditry, and oppressive taxation.

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See also **Agriculture**

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VOLCANOES

Humanity has always had an ambiguous relationship with volcanoes. Volcanic eruptions can be tremendous forces of destruction, but soils produced by the weathering of volcanic rocks are very fertile in the right climate. For the archaeologist, eruptions can preserve aspects of communities almost instantaneously. The earliest record of a volcanic eruption is a wall painting from Çatal Hüyük, central Turkey, dating from 6200 BC. This is beyond the scope of this volume and here only the volcanoes of post-Stone-Age Greece and Italy will be discussed.

The recently active volcanoes of Greece lie along an arc from Corinth to Nisyros, near the Turkish coast. They are produced by the melting of the Mediterranean sea floor as it is subducted beneath the Aegean region. The sea floor descends at an angle of

about 45 degrees until parts of it melt at a depth of 150 km. The magnia (molten rock) then rises and is stored in chambers at depths of 5 to 10 km before eruption.

The most famous Greek volcano is Thera (Santorini). It had been dormant for a long period before the famous "Minoan" eruption in 1450 or 1650 BC – the exact date is still disputed. Before the eruption the present bay was probably almost filled with a volcano, similar to but larger than the present Kameni islands. The eruption started on this volcano and quickly destroyed it, creating a caldera (giant crater) 8 km in diameter. At its maximum the cloud of volcanic ash rose to more than 35 km in the atmosphere and was dispersed as far as Turkey, Israel, and Egypt. On the island the ash was up to 40 m deep and buried all the settlements, including the well-preserved village now known as Akrotiri. Towards the end of the eruption parts of the island collapsed into the caldera. These giant landslides, or particularly violent episodes of the eruption, produced a tsunami (tidal wave) more than 40 m high. Such a wave must have caused considerable erosion, damage to coastal communities, and the salination of agricultural land on nearby islands. These destabilizing effects may have led to the collapse of the Minoan civilization on Crete.

Since then, sporadic minor lava eruptions have created the Kameni islands. The only violent eruption was in AD 726, when so much pumice was produced that it reached Constantinople. There it was noticed by Leo III who interpreted it as a sign of divine displeasure and imposed iconoclasm. The last eruption was a minor one, in 1950. Another volcano 15 km northeast of Thera erupted in 1650. It started underwater and built up a small island, which was rapidly eroded below sea level. Gas from this eruption killed animals and people on Thera.

The largest volcano of this arc is Melos and its archipelago. Volcanism started 3 million years ago, but essentially finished 100,000 years ago. In antiquity the most important volcanic product of the island was obsidian, a natural glass that occurs in ancient lava flows. It was used for knives from the 9th century BC. Recently, exploitation has turned to clay (kaolinite and bentonite) and volcanic ash (perlite). The easternmost volcano of the chain is Nisyros, a small island that has not had any eruptions of lava during historical times. However, there have been a number of steam explosions caused by the interaction between rainwater and magma at shallow depths. These made an impressive series of craters in the interior of the island, the last in 1887. Another small volcano is the peninsula of Methana, in the Saronic gulf. Fresh lavas in the northwest may have been erupted in the 3rd century BC.

In Italy there are recently active volcanoes around Naples (Vesuvius and the Phlegraean fields), on the Aeolian islands, and in eastern Sicily. As in Greece, this volcanism is related to the subduction of the Mediterranean sea floor. Here, however, the geometry is more complex and no single arc has formed. Mount Vesuvius is probably the best-known volcano in the world. The oldest parts, known as Mount Somma, started to form some 12,000 years ago. Construction continued intermittently until 1100 BC, when the volcano was about 2,000 m high. A long period of repose ended with the famous eruption of AD 79, when the top of the mountain was completely removed in three days. A cloud of volcanic ash rose to 30 km and fell on the surrounding countryside: Pompeii was buried to a depth of 7 m. Rain falling on the ash near the vent transformed it into hot mud flows that swept down and engulfed Herculaneum. Eruptions of ash since that time have partly filled the crater to form the present cone of Vesuvius. Most of these were small, except that of 1631. The last eruption was in 1944.

The Phlegraean ("burning") fields volcanic area lies just to the west of Naples. It comprises more than 50 small ash cones, some under the gulf of Pozzuoli. A large magma chamber underlies this region at a depth of a few kilometres. Magma movements can produce rapid changes in the height of the land. The effects of these changes can be seen in the Roman market place (Serapheum), where marine molluscs drilled holes in the columns at a height of several metres above the present sea level. The most recent eruption produced Monte Nuovo in 1538.

Most of the Aeolian islands are volcanic, but only three are of interest. Lipari was a major source of obsidian in the western Mediterranean. It was obtained from lava flows erupted during the 4th millennium BC. The last eruption was in AD 729, when up to 200 m of pumice was deposited in the north, burying the Roman acropolis. The eruption terminated with new flows of obsidian. The island of Vulcano has two independent volcanoes, Fossa and Volcanello, which were linked by an isthmus during the 16th century. Fossa has generally been more active with explosive eruptions about twice a century. The last eruption was in 1886–89; hence we can expect a new eruption soon. Stromboli is a small, almost perfect, volcanic cone that has been active for at least 2,500 years. However, the activity is not generally intense and consists of small explosions every 5 to 10 minutes from the summit craters. These are caused by large gas bubbles that rise up the narrow conduits and burst, scattering parts of the bubble wall.

Mount Etna, the mythical forge of Vulcan and also home of the Cyclopes, is the largest volcano in Europe but also one of the youngest – it was mostly formed during the last 150,000 years. The volcano has been almost permanently active for at least 2,500 years. The lava flows from fissures or small ash cones on the flanks of the volcano and more rarely from the summit craters. At other times there are explosions and small eruptions within the craters.

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See also **Geology; Santorini**

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VOTIVE OFFERINGS

Strictly speaking, the term "votive offering" signifies something dedicated in consequence of a vow. Partly because the exact circumstances of a dedication are not always known, partly because a gift to the gods can almost always be taken to imply some kind of a vow, the category is elastic.

Comparison of the modest tin votive plaques readily available to worshippers in Greece today with the terracotta plaques or representations of parts of the human body from the ancient (4th century BC) sanctuary of Asclepius at Corinth or, on a larger scale, with the stone relief of a leg from Epidaurus demonstrates the identity of practice. Furthermore the existence of early Christian votive plaques supports the idea of a continuous tradition.

More substantial gifts to churches from the early Christian period onwards (furniture, church plate, icons) can often be seen to be votive from accompanying inscriptions, and the votive dedication of churches themselves in Byzantine and later times is demonstrated by the known origins of numerous chapels in the Greek countryside and elsewhere. Similar gifts to sanctuaries, deities, or other superhuman authorities are attested in antiquity by inscriptions and literary sources as well as the objects themselves. Ancient figurines and statues are regularly inscribed ("Mantiklos dedicated me to Apollo"; "The Messenians and Naupactians dedicated [this statue] to Olympian Zeus as a tithe of the spoil of their enemies").

The custom of making votive offerings may well go back into prehistory, since some of the objects found in prehistoric shrines, such as the terracotta animals in Minoan peak sanctuaries and in other sacred places, seem certainly votive. The subject is best presented with primary reference to antiquity.

Since the definition of a votive offering is by the intent of the donor, whether an individual or a group, and is dependent also on economic circumstances, the range of types, sizes, material, and value is immense. The material may be perishable (vegetable), cheap (wood, terracotta), or more valuable (stone, metal, precious metal). The type may be anything from a wreath, a candle, or a tiny object to a building. The treasuries (small temple-like buildings but without colonnades) that individual Greek states erected in sanctuaries to house the ritual equipment that their representatives used on ceremonial occasions were a kind of votive offering, intended to glorify the sanctuary and its patron deity. Temples such as the Parthenon, which were additional to the temple that housed the cult statue of the sanctuary, could be votives. If the item concerned was itself representational, or else decorated with figures, possible subjects include images of the deity addressed, images of the worshipper (often with the intention of making permanent an act of piety depicted, e.g. the bringing of an animal for sacrifice), images of sacrificial animals, or sacred objects. Otherwise, attractive or precious items of any kind at all could be offered. Occasions of offering can be summarized by quoting the chapter headings of Rouse (1902), with some additional comments.

Rouse's categories are: (1) to the dead, heroes, chthonian deities (in anticipation of or gratitude for help or favours); (2) tithes, first fruits, kindred offerings (whether crops or the products or profits of trade or business); (3) war (spoils, commemorative statues, etc.); (4) games and contests (prizes, instruments, commemorative statues); (5) disease and calamity (models of the diseased part; an inscription relating a cure); (6) domestic life (items relating to marriage and childbirth); (7) memorials of honour or office (herms, honorific statues or reliefs); (8) memorials of feasts and ceremonials (inscribed vases, representations of the animal sacrificed or the votary carrying a sacrificial animal or object); (9) propitiation (offerings given in redress for impiety, such as the "Zane" statues at Olympia); and (10) rarities and valuables (as the due of deities).

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W

WARFARE

Civilized warfare on a grand scale in Greece began with the rise of Mycenaean civilization during the 2nd millennium BC. From roughly 1600 to 1250 BC palaces at Mycenae, Pylos, Tiryns, Thebes, and elsewhere fielded well-equipped forces that put a high premium on the use of the horse, chariot, and bow. By the last century of Mycenaean civilization well-protected foot soldiers with spear and sword were fielded in response to seaborne attackers. From the evidence of the linear B tablets, painted pottery, engraved jewellery, and the physical remains of the vast fortifications of the citadels, the Mycenaean palace armies were probably small, tightly controlled by royal dynasts, and generally inflexible in their response to less well-organized raiders and plunderers, who posed a far greater threat to their stratified societies than did other royal armies in Asia Minor and Egypt. By 1200 BC most of the palaces were destroyed, the population had plummeted, and material culture was impoverished. For the next four centuries Greek warfare of the Dark Ages was probably characterized by the haphazard raiding and skirmishing of mounted grandees accompanied by small bands of attached light-armed foot soldiers.

The rise of the Greek polis – by 700 BC there were probably more than 1,000 city states in the Greek-speaking world – was probably the result of an emerging middling class of adroit and independent small farmers. Their peculiar practice of phalanx warfare was inseparable from their own agrarian chauvinism and political autonomy, and marks the true beginning of western infantry practice. The predominately agrarian character of these citizen militias tended to define hoplite war as a single collision between phalanxes of heavily armed infantry – a decisive engagement in which casualties were limited, victory and defeat clear-cut, and damage to the surrounding countryside and civilian population limited. Such fighting did not require taxation, public investment in war material, or fortifications, and thus helps to explain the astonishing rise of the Archaic city state itself.

Infantrymen were known as hoplites, due to their cumbersome gear (*hopla*): bronze breastplate, greaves, and helmet; a wooden double-grip concave shield; a spear about 2.7 m long; and a secondary short iron sword. The large shield, more than 7 kg in weight and 90 cm in diameter, also explains the nature of hoplite fighting. The infantryman depended on the man next to him to shield his own unprotected right side and to maintain the cohesion of the entire phalanx, military service now reinforcing the solidarity of the citizenry. The shield's unique double grip allowed its weight to be held by the left arm alone, and its concave shape permitted the rear ranks to rest it on their shoulders as they pushed on ahead. The weight of the panoply – ranging anywhere from 20 to 30 kg – meant that hoplite battle would be short and decisive: infantrymen massed into the columns of the phalanx and charged each other head-on, soldiers seeking cover from the array of shields and victory through the sheer force generated by spearmen pushing against the backs and sides of their friends and family ahead. On flat ground, hoplites in formation were usually invulnerable to mounted assault by the more wealthy and the harassment of poorer skirmishers.

Generals fought in the front rank and their tactical options were exhausted with the prebattle placement of particular contingents along the battle line and the choice of terrain. Before the 6th century BC fleets were rare and sea battles essentially non-existent. Armies were challenged to fight by formal notification and occasionally coerced to action by the ravaging of local crops. Battle itself was not much longer than a half-hour or so; pursuit was haphazard. The Persian (490–479 BC) and Peloponnesian (431–404 BC) wars changed all that, and revealed the tactical limitations of hoplite armies when faced with forces that did not share the same protocols of warfare and fought in theatres and on terrain far removed from flat plains. During the 5th century BC Athens turned to its fleet and soon developed sophisticated methods of defensive and offensive naval manoeuvres, attacking through or around an enemy line of ships to achieve easy ramming. In contrast, the Spartans sought to improve on the simple collision of hoplite battle by mastering outflanking movements on the right wing, made possible by the superior drill and training of their professional corps. Thucydides' magnificent description of Mantinea (418 BC) reveals how such tactical competence might shatter an enemy line and change the entire course of battle. At the battle of

Delium (424 BC) the Theban general Pagondas first employed reserves, massed phalanxes deeper than the standard eight shields, and used horsemen for more than just preliminary skirmishing. Cleon, Brasidas, and Demosthenes during the Archidamian War (431–421 BC) experimented with light-armed troops to attack hoplites, through manipulation of terrain, darkness, and sheer surprise. No-one sought decisive confrontation through traditional hoplite pitched battles, since warfare was now beginning to be governed more by military necessity than by cultural restraint.

Epaminondas the Theban (d. 362 BC) is often considered the father of Greek infantry tactics. In fact, none of his ''discoveries''–a deepened phalanx, the use of superior troops on the left, the oblique order of march, the incorporation of elite units, and the combined use of horsemen – was novel per se. Rather his originality lay in combining these previously known tactical options into a unified battle plan – one uniquely suited for his phalanx of dour Theban agrarians who had a reputation in antiquity for physical prowess and infantry ferocity. Epaminondas' victories at Leuctra (371 BC) and second Mantinea (362 BC) proved that an innovative heavy infantry might alone still clear a battlefield of the enemy. Yet, his grand invasion of Laconia (370–369 BC) that freed the Messenian helots did more to emasculate Sparta than did his defeats of Spartan hoplites in pitched battles, proving that victory now required the use of infantry as part of larger economic and cultural strategies. More abstract 4th-century BC reactionaries also sought to maintain infantry superiority through more innovative use. Plato and Aristotle, for example, speculated on novel ways of preserving the noble tradition of hoplite supremacy within the city state; their advice ranged from the employment of infantry in expanded roles on the borders to the incorporation of stockades and fortifications within the old civic idea of a hoplite militia defence.

Nevertheless, throughout the 4th century BC most generals worried less about the tactical possibilities of infantry employment than learning the new uses of artillery, missile troops, peltasts, and cavalry, both for the attack on and defence of fortified positions. The more utilitarian philosophers and rhetoricians of the 4th century BC reflect this growing tactical renaissance, as they sought to apply dialectic and induction to generalship (*strategika*), the arrangement of troops (*taktika*), and weapons training (*hoplomachia*). War was no more a question of bravery or a reflection of values, but simply an art (*techne*), teachable like any other. Xenophon (428–354 BC), as author of monographs such as *The Cavalry Commander and On Horsemanship*, is the best example of this mixture of battlefield experience and philosophical training. His contemporary, the pragmatic Aeneas the Tactician, follows in the same utilitarian tradition. Aeneas' apparently vast *Military Preparations* is lost, but an extant monograph about survival under siege covers everything from the mundane (e.g. passwords, reveille, codes, tunnelling, fire-signals) to the broader employment of mercenaries, sorties, and plans of evacuation.

Philip II (359–336 BC) and his son Alexander III (336–323 BC) of Macedon sought to combine infantry innovation with light-armed, missile, and mounted troops to form a true symphony of forces. Battle became longer, as much as several hours in duration. The general – nearly always mounted – now had a host of options and different troops at his command, which allowed the much smaller Macedonian armies to create havoc at particular spots in the enemy's battle line, through which poured heavy cavalry and infantry, causing psychological terror and general collapse – as the Greek confederates learned at Chaeronea (338 BC), the last battle by truly independent city states. Perhaps Alexander's greatest tactical contribution was the idea of rapid and unceasing pursuit, as part of his overall aim of destroying the enemy outright on the battlefield. Heretofore, battle tactics had not been closely integrated with larger strategic issues. But Alexander saw troop arrangement as merely a part of grand strategy – his aim was not only to win on the battlefield, but to destroy both materially and spiritually the enemy's will to resist. Infantry battle would then logically lead to the invaded surrendering its territory and very culture to Macedonian royal control.

In that regard, Alexander entirely reinvented the notion of Greek tactics, which in the 4th century BC had evolved from, but not replaced, the original emphasis on formal infantry engagements to resolve border disputes. The original purpose of Greek battle had been to limit casualties and resolve disagreement through the simple and often economic use of force. With the decline of the agrarian city state in the 4th century BC, however, the Greeks enhanced decisive battle with auxiliary troops to make fighting longer and more elaborate – but not necessarily all-destructive. Under the Macedonians the West at last applied its full scientific and rational arsenal to the battlefield, as part of a larger effort to destroy a culture, rather than to defeat an enemy. Tactics at last now fully served strategy and Hellenic warfare became the most lethal in the history of civilization up to that time.

During the subsequent Hellenistic era (323–146 BC) Greek-speaking mercenaries were prized throughout the Mediterranean as pike-carrying phalangites that could rout indigenous tribal armies and alone stand up to the Roman legions. Pikes lengthened to nearly 6 m in length and were wielded by both hands, as body armour and the shield shrank or disappeared altogether – the safety of Greek mercenaries' lives was now less important than their ability to kill. After the failure of Pyrhhus in Italy (280–279 BC), the Greeks spent a century and a half resisting Roman invasions. Some of the great battles of the age – Cynoscephalae (197 BC:) and Pydna (168 BC) – pitted Greek hired infantry on Greek soil against republican legionaries. But the inflexibility of Greek tactics, the cumbersome nature of the Macedonian phalanx, the greater manpower reserves of Italy, and the superior élan of agrarian Italian recruits led to the doom of the Greek-speaking armies. With the final subjugation of Corinth (146 BC) Greek military forces per se ceased to exist and the phalanx became the curiosity of pedantic armchair strategists. In some sense, Roman republican militias with their emphasis on group solidarity, patriotism, and belief in a superior culture had become more Greek than the Hellenistic dynastic armies they conquered. The forces of Alexander's successors were every bit as despotic, top heavy, and corrupt as the old Persian imperial levies, whom the Greeks had conquered almost two centuries earlier.

Under the Roman empire Greece suffered from high taxation and general depopulation, ensuring that organized military rebellion was out of the question. Most Greek soldiers fought anonymously as hired soldiers in the legions on the northern

and eastern frontiers of the empire. Yet except for a few horrific battles between rival Roman dynasts, Roman control brought Greece a half-millennium of general tranquillity (100 BC–AD 400) – the longest period free of major wars in Hellenic history. With the collapse of the western empire, Byzantine armies took over the exclusive protection of Greece. For the first time since the 2nd century BC, there were now to be independent Greek-speaking armies in Italy, North Africa, and Asia Minor. Under Justinian's skilled generals Narses (478–573) and Belisarius (500–65), Greek soldiers ranged from Italy to Persia, trying in vain to reconsolidate the western empire under the aegis of Hellenism and Orthodoxy. Sound tactics and the Byzantines' technological edge in shipbuilding, fortifications, and armament compensated for a general absence of manpower and hardy rural infantry. Still, small mobile Greek armies would keep foreigners out of Greece until the arrival of the Franks in the 13th century. The ancient and modern history of Greek warfare is characterized by remarkable success when local, highly motivated militias are used for defence, but eventual failure when Hellenic armies are sent far overseas without adequate material and spiritual support from home.

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See also **Architecture; Siegecraft**

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WATER MANAGEMENT

Use and distribution of water

Whenever more than a handful of human beings settle permanently in one spot the availability of water becomes one of the parameters that determines their survival. Water for drinking must be reliable and potable. Water for crops must be available at the right time and in the right quantities. For the Greeks, the availability of water is itself largely determined by the Mediterranean climatic regime and the limestone-dominated geology of Greece, which allows for the formation of many subterranean sinkholes and channels.

Perpetual streams and springs are rare, with even major rivers shrinking to trickles or dry stream beds in the summer, only to become rushing torrents when the winter rains arrive. Across the millennia the Greek farmer needed to be opportunistic with regard to the use of water. Along with wells, cisterns for catching and storing rainwater are a regular feature of ancient houses, whether they stand in town or in the country. Terracing of fields is also a product of the rainfall regime of the Mediterranean climate; it simultaneously prevents erosion and ensures that more water saturates the agricultural land. Cereals must go into the ground in the winter to take advantage of the period of maximum moisture and be harvested at the beginning of the summer. Grapes, on the other hand, need the long dry weeks to ripen and become sweet. After picking, fruit that the farmer intends to dry for raisins can safely be left to bake in the open under the sun. The chances that sudden rain will ruin the harvest are slim.

The Aegean cultures were not like the "hydraulic civilizations" of Mesopotamia and Egypt which depended on the construction and coordination of a vast network of irrigation canals and dykes. Water management, whether rural or urban, tends to be small-scale and locally controlled. A simile from Homer's *Iliad* (21. 257–59) gives a vivid picture of the typical irrigation technology of ancient and medieval Greece:

> as a man running a channel from a spring of dark water
> guides the run of the water among his plants and his gardens
> with a mattock in his hand and knocks down the blocks in
> the channel . . .

An important exception to this rule can be observed through the history of Lake Copais in Boeotia. Historically, it was more of a swamp than a continuous expanse of water, waxing and waning with the seasons. The ancient Greeks believed that the Minyans, a legendary people of the heroic age, had drained the water and turned it into arable land. When drainage operations were begun in the late 19th century, the truth behind the tradition was revealed. The lake had been drained in Mycenaean times by a series of canals and earthen dykes, reinforced by Cyclopaean masonry, which conveyed the water to natural fissures in the earth. Perhaps this work was overseen by the rulers of the citadel of Gla which overlooks the Copaic plain. There were attempts at drainage in classical and Roman times, but none was carried through to completion. Even the modern efforts were not completed until well into the 20th century.

If the Mycenaean rulers were capable of envisioning and carrying out the draining of the Copaic basin, it should not be surprising to find that they had a sophisticated infrastructure for providing for the water needs of the palaces and surrounding settlements. Large populations living in close quarters had to be provided with drinking and washing water, while waste water and sewage had to be drained away from areas of habitation. In this technology, as in so many other things, they borrowed heavily from their Minoan predecessors.

Given the high level of luxury and elegance in the palace of Knossos, it should come as no surprise that much care and

ingenuity were devoted to the area of personal hygiene. This is seen most strikingly in the suite of rooms known as the Queen's Megaron. Besides the bathroom proper, furnished with a soaking tub, there was a separate chamber with an elaborate system of interconnected cisterns, drains, and sewers. This running water was apparently used for a lavatory and, perhaps, a shower (Pendlebury, 1933, p. 52). At one of the outbuildings of the palace complex, dubbed the Caravanserai, there were provisions for travellers to wash their feet and bathe in tubs filled with water heated by wood fires. Even at this level of society, however, water was not wasted: the water from the footbath flowed out into a drinking trough for animals.

Mycenaean palaces and towns have produced evidence of aqueducts and public drainage systems. The most impressive Mycenaean water projects date from the late 13th century BC. This was a time of increased fortification at major citadels such as Mycenae and Tiryns. If, as seems likely, the rulers of these towns felt the need to prepare to face external threats, their efforts to secure the water supply can be seen as part of that preparation. At Athens, Tiryns, and Mycenae tunnels or passages were opened to secret springs, so that they could be reached even in the event that the city walls were besieged. Despite all these precautions, the Mycenaean civilization collapsed in the 12th century BC. With the administrative structure of the palaces gone, the Mycenaean drains and aqueducts fell into disrepair.

The depopulation and devolution of the Dark Ages saw the loss of many of the technological achievements of the preceding centuries. Although people may have been aware of the principles behind the construction of systems for water transport and drainage, there seems to have been little incentive and/or logistical support for carrying out such projects. This situation changed in the Archaic period when many Greek cities were ruled by tyrants. Dependent on popular support in their conflicts with aristocratic factions, these despots often undertook major public works projects for the improvement of their cities. In the late 6th century BC Polycrates, the tyrant of Samos, was responsible for what Herodotus would later call three of the greatest feats of building and engineering in the Greek world: the great temple of Hera, the island's artificial harbour and breakwater, and a tunnel driven straight through a mountain to bring water to the city.

This tunnel, called the tunnel of Eupalinus after its architect, was inspired by the same desire that we saw in the Mycenaean citadels: to provide the city with a hidden and secure water source in times of siege. What sets Eupalinus' achievement apart is that he drove his tunnel straight through a mountain for approximately 1 km. Even then the water had to be brought from its source more than 800 m away through an underground conduit. Water did not flow through the tunnel itself, but through a covered conduit that ran below the level of the tunnel floor and at a steeper gradient. It is not known whether this secondary excavation was part of the original plan or was added when it became clear that the slope of the tunnel was inadequate to maintain the flow of water. How exactly the line of the tunnel was laid out and followed with such remarkable accuracy by the workmen is another mystery (Goodfield, 1964).

Although none of the other tyrants attempted anything so grandiose, many of the famous fountain houses of antiquity had their first architectural elaboration in the 7th and 6th centuries BC. For the ancient Greeks, even natural springs had an aura of sanctity about them because of their importance and rarity. Obviously a settlement could not be contemplated where there was no source of water, but the built-up area might be some distance from the spring itself, perhaps because of concerns about contamination. Transporting the water to a more convenient location became an objective. Pisistratus of Athens, for example, laid an aqueduct that ran into the Agora, as well as building Athens' famous nine-spouted fountain called Enneakrounos. The location of this fountain is still uncertain, although a contemporary fountain house was found in the southeast corner of the Agora.

Archaic and Classical fountain houses tended to be relatively simple. The first modifications to the natural spring might be simply to carve out a basin or storage cisterns from the surrounding rock. After that came the roofing over of the cisterns, and then the construction of a columnar porch under which the people drawing water might stand. Other amenities might be a parapet on which to rest one's jar, or a spout to fill it. Fountain houses, along with government buildings, a theatre, an agora, etc. were among the marks of a polis, according to Pausanias. This public supply of water had several advantages over what might be available in private homes. Well water, though fresh, was difficult to draw up and might disappear in times of drought. Runoff water was collected and stored in underground cisterns, but was used for purposes other than drinking if at all possible. By bringing water from the fountains, women (and it was almost always women who performed this task) got better-quality drinking water as well as a chance to meet friends. Many depictions on vases make it clear that going to the fountain house was a time for socializing.

Classical cities, by the end of the 6th century BC, also had provisions for draining away storm and waste water. These sewers ran in large channels through public open spaces and in smaller pipes beneath the streets of residential areas. Private houses were equipped with a small room holding a drain leading into the sewer lines. By the 4th and 3rd centuries BC, Greek latrines progressed to wooden benches or terracotta seats. Bath tubs were still free-standing containers without drainage holes, so drawing and emptying a bath must have been tedious work. Public baths had individual tubs which in some cases were filled by running water from a channel that ran by them at shoulder height. These baths were connected with gymnasia or shrines of Asclepius and thus generally for the use of men only (Crouch, 1993, pp. 26–29).

Aqueducts, fountains, and baths from the Roman period show a much higher degree of elaboration than earlier structures. Roman rule brought an end to endemic warfare, so it was possible to run above-ground aqueducts for great distances without fear of exposure to enemy forces. Large public baths open to both sexes are a prominent feature of Roman urbanism throughout the provinces. During this period fountains become nymphaea – ornate, usually multistorey constructions which were only secondarily places to get water. With their sculptural decoration, multiple fountains and pools, and rich materials they existed mostly as a stage for the display of the interplay of light, water, and stone which is such a hallmark of the architecture of the empire at its height.

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See also **Canals; Climate; Technology**

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WOMEN

There is little certain information about women in Bronze Age Greece and Crete so that most of our knowledge of them during this period is speculative. The two main sources of information are art and the Linear B tablets.

While feminine figures play an important role in both Minoan and Mycenaean art, their identity is not clear. They may be goddesses, priestesses, nobility, or common women. It appears that in many instances females portrayed in Bronze Age Aegean art are goddesses. Feminine statues are shown adorned with snakes, birds, or floral motifs, often with arms upraised in a possible pose of prayer or benediction (the "Goddess with Upraised Arms"). One small ivory figurine from Mycenae shows two women seated together with a small child on the lap of one of them. Some scholars have interpreted this as an early portrayal of Demeter, Persephone, and Plutus. In glyptic art, especially from Crete, females are shown in the centre of outdoor religious scenes, often engaged in dances. Women were represented in the frescos that adorned houses and palaces. In some instances they are depicted gathering crocuses in idyllic scenery, while in others they are shown socializing in the company of men. In Crete they participate in scenes of ritual procession, while one fresco from Mycenae shows two females together driving a chariot.

Linear B texts, while fragmentary and of a "shopping list" nature, give clearer glimpses into the everyday lives of women: they appear as queens (*wanassa*), priestesses (*hiera*), landowners, temple servants, and slaves. While only the surface of the roles of women in Linear B has been scratched, it appears that on the Greek mainland a patriarchal system was already in place. Among women, only religious functionaries owned land. Conversely, texts from Knossos in Crete show women owning fruit orchards independently of men, possibly indicating their higher status in the wake of the Minoan civilization. In both regions female slaves were common, usually identified by a proper name and the land of origin. This may be indicative of the seizure of women as war booty as portrayed in Homer's *Iliad*.

Beginning with Homer and Hesiod, literary and historical texts and art provide information concerning the lives of women in the historical period. Unfortunately, most of these texts and images were rendered by men, and thus they offer a view of women from the male perspective. While women had extremely limited political and economic powers, they played active roles in the cultural life of ancient Greece. Prominent literary names that have survived are of the poets Sappho of Lesbos (6th century BC) and Telesilla of Argos (5th century BC).

Women were most active in the religious life of the polis. The two most important fertility rites, the Thesmophoria and the Skirophoria, were administered solely by women. Since the former was a three-day-long affair involving all Greek women (except virgins – Callimachus, fr. 63), it is evident that considerable planning was involved, all controlled by women. In Aristophanes' *Lysistrata* (64off.) the chorus of women recounts bearing the basket in the Arrhephoria, milling flour for the Athenaion festival, "playing the bear" for Artemis at Brauron, and serving as basket-bearers in the Athenaion festival. While such roles were often reserved exclusively for the upper classes, other important religious positions were not. The priestess of Athena Nike on the Athenian Acropolis was chosen by lot from the female population of Athens. For her services she received an annual salary of 50 drachmas and the hides and legs from the public sacrifices. On the more human side of religion, literature and art show that it was women who were responsible for the care and remembrance of the dead. Women prepared corpses for burial, were the chief mourners during funeral processions, and brought offerings of garlands and funerary libations to the dead after burial (*Choephori*).

Beyond religious duties, women's lives consisted of marriage and motherhood, textiles, and household management. The clearest picture of household life comes from Xenophon's *Oeconomicus* and Lysias' *Murder of Eratosthenes*. Combining the two, a picture of married life emerges. The woman is married very young to an older husband chosen by her parents. Once married, she cares for the organization of the household, spinning and weaving, and, in the case of more affluent brides, supervises the household slaves. Women wore lead cosmetics to make themselves appear pale, the ideal shade for those expected to remain indoors. They travelled outside the house for religious events, funerals, and to meet neighbours. These forays outside the home were viewed with suspicion by men, who were apparently in chronic fear of adultery (*Eccleseazusae*). Lower-class women also worked outside the home (Demosthenes, 57. 31–35; *Thesmophoriazusae*, 446–52). Between the "respectable"

and working classes were the *hetairai* (courtesans), the most famous of whom were Aspasia, Neaira, and Lais.

From the end of the 5th century BC into the 4th, women's lives became increasingly constricted. Pericles claimed that the best that could be said of any woman was that her name was never mentioned in public either for praise or blame (Thucydides, 2. 45). In the 4th century BC gynaecology, and thus women's bodies, fell increasingly into the hands of male doctors, while philosophers such as Plato ascribed the roles of midwife and mother to males and their progeny of the mind.

In the Hellenic period, while many general aspects of life such as religion and motherhood remained the same, women of all classes made greater contributions to politics, culture, and society than previously, and women experienced greater freedoms than at the end of the Classical period. In the aristocracy, women ruled as queens, either side by side with their consorts or independently. Notable at the head of dynasties were Olympias, queen of Macedon and Alexander's mother; Berenice II (3rd century BC), queen of Cyrene and Egypt; queen Arsinoë of Egypt (*c.*270 BC); and Cleopatra VII (1st century BC), queen of Egypt and final monarch of the Hellenistic dynasties.

Nonroyal women also enjoyed social, legal, and economic benefits in the Hellenistic age. In the 2nd century BC a woman called Archippe was publicly honoured in Cyme (Asia Minor) for financial contributions made to the polis (Pleket, no. 3), while an inscription from Histria records the existence of a female archon (ibid., no. 2). In the 1st century BC Phile of Priene held the office of *stephanephoros* (''garland bearer'') for building, at personal expense, the city aqueduct and reservoir (*Inschriften von Priene*, 208). Economic independence, if not wealth, was possible for lower-class women. Documents preserved from Egypt reveal: a marriage contract sworn between Heraclides and Demetria to regulate their claims to property and means of redress in case of violation (*P. Elephantine*, I); a lawsuit enacted by Philista, ''a working woman'', in a case of personal injury (*P. Enteuxis*, 82); and the complaint of one father whose daughter Nike was expected to support him financially through her labour (ibid. 26).

In the cultural sphere, this was the age of the female intelligentsia. Poets such as Erinna (4th century BC) and Nossis (3rd century BC) were likened to Sappho (Antipater, 9. 26), while Aristodama of Smyrna was made *proxenos* (''patroness''), citizen, and benefactor of Lamia for her verses (W. Dittenberger, *Sylloge Inscriptionum Graecarum*, 1915–24, 3. 532). Anyte of Tegea, among other works, wrote epigrams for dead maidens, noting their wisdom as well as their beauty (*Anthologia Palatina*, 7). Some women became painters, with Laia of Cyzicus renowned as the finest portrait painter of her day (Pliny, *Naturalis Historia*, 35. 147ff.). In philosophy, women studied at Plato's Academy (Diogenes Laertius, 3. 46, 4. 2, 6. 96ff.), while in the 4th century BC women began formal practice of medicine (Hyginus, *Fabula*, 274. 10–11).

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See also **Adultery; Children; Divorce; Dowry; Gender; Marriage; Men**

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WOMEN'S CULTS

In antiquity women played a significant role in religion, and the existence of female divinities in the Greek pantheon has led many scholars to investigate further the relation between mortal women and their gods and goddesses. Some cults were exclusively practised by women, whereas in others women participated by fulfilling certain roles. Not surprisingly, many women's cults were closely associated with female divinities.

The Brauronia, originally a local festival at Brauron in Attica, became associated with the goddess Artemis. Girls between 5 and 10 years of age were sent by their mothers in procession to Artemis, the eternal virgin goddess. Artemis is also connected with childbirth, and therefore many women's cults are related to her. According to evidence from Plutarch (*Aristides*, 20. 6), young women would make premarital offerings to Artemis, a goddess associated with transition in a woman's life. Women participated fully in cults that honoured Demeter. Besides the Eleusinian mysteries the festival of Thesmophoria was widely celebrated among women, who performed fertility rites. The festival took place in the autumn and was open to women only. Demeter, together with her daughter Persephone, and Dionysus were worshipped at the festival of Haloa in December. Demeter, the goddess of grain, was often worshipped with Dionysus, the god of wine. In Arcadia she was worshipped with Poseidon. In later times she was syncretized with Gaia and Rhea, or Cybele.

Women played an important role in civic festivals. In the Panathenaia they were the ones who wove and presented the *peplos* (a special embroidered robe) to Athena, and on the night before the procession that held central place in the festival they performed ritual cries and choral dances. The Athenian festivals occurred in early and midsummer in the following order: first the Plynteria and Kallynteria (cleansing and beautifying festival), then the Skira (threshing festival), and finally the Panathenaia. The Arrhephoria was a mystic festival in honour of Athena that took place in midsummer parallel to the Panathenaia. Four girls of noble families had to spend some time at the temple of Athena: two of them had to present to the goddess the *peplos* that the women had woven, and the other two received coffers from the priestess, the contents of which could not be revealed, and carried them in the great procession.

Many women's cults had a strong local element, such as the cult of Hera, the goddess of marriage and domestic life, in places like Argos and Samos. The cult of Dionysus was particularly associated with women. Dionysiac orgies were celebrated on Mount Parnassus by cult associations of women, and were later incorporated in the cult of Apollo at the same place. In later times, especially in Hellenistic Alexandria, women performed lamentation rites for Adonis after the celebration of

the wedding of Adonis and Aphrodite. The Adonia was also celebrated in Classical Athens in the spring. Rituals of incubation, like those connected with Asclepius, were also popular among women, but were not exclusive to them.

Women also played an important role in official and mystic cults as priestesses. (It should be noted that there was no such thing as a caste of priests or priestesses.) Many priesthoods were filled by women only, mainly for the cults of goddesses. There were various rules as to the status and age of a priestess. The priestess of Athena was a married woman, whereas virginity was required for priestesses of Hestia. Pythia was the name given to the priestesses of Apollo who played an important role in Greek history by giving the oracular response on many important public and private matters.

Heroines held an important position in women's cults. Various phases of life involving marriage, pregnancy, and children were associated with specific cults of heroines, the most notable being those that feature in myths around the Olympian pantheon, such as Ariadne, Semele, and Iphigeneia. The clothes of women who died in childbirth would be dedicated to Iphigeneia at Brauron, but of those who survived to Artemis. There were other cults addressed to less well-known heroines in myth, such as the celebration of Hecale in the Attic deme of the same name, a heroine mostly known from the cycle of myths around Theseus. At Olympia Pelops and Hippodameia were honoured in an agonistic setting. Last but not least comes the expression of religious feeling towards a divinity, or often in heroic cults, in choral contests as an agonistic ritual.

ANDROMACHE KARANIKA-DIMAROGONA

See also **Festivals; Orgiastic Cults; Priesthood; Religion; Women**

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WOODWORKING

Ancient Greek carpentry is not well known because of the lack of permanently dry or permanently waterlogged conditions that favour the preservation of wooden objects. Carpentry, moreover, is not a craft that lends itself to written description. Theophrastus wrote much on the choice and preparation of timber, but this amounts to little more than the lore which carpenters thought fit to relate to him; much of it seems to be nonsense or misunderstood.

Greek buildings were walled with stone or mud brick, but sockets reveal something of the missing timbers. Almost every building had a timber roof, often upper floors, and usually joinery (in windows and doors), none of which survive. Temple roofs could be mighty timber structures, but involved timbers merely resting on each other; internal walls reduced the span and usually made it unnecessary to use timbers more than about 10 m long. Sophisticated carpentry with tension-transmitting joints, of the kind found in Western cathedral roofs, was apparently unknown. The oldest surviving, still functional timbers are the original wooden blocks that join the column-drums of the Parthenon and prevent them from disconnecting in an earthquake. Occasional timber elements survive in Roman buildings.

Furniture, as known from vase painting, was rich and varied, at least among the well-to-do, but there is little evidence of its construction. Musical-instrument-making involved complex woodworking: a lyre, for example, was a clever piece of miniature engineering. Military equipment, especially artillery, could involve massive timber structures.

Our knowledge of Greek shipbuilding comes from underwater excavation of the wrecks of cargo ships (not triremes, which had a positive buoyancy and thus never sank). Ancient Greek shipbuilding was as complex and sophisticated as any that the world has seen. As with other ancient ships, the hull was built as a shell of planks and the ribs added later. The planks were ingeniously and laboriously joined edge-to-edge by hundreds of tenons hidden in their thickness. As in all subsequent ages, the size of ships was limited by the length of the longest tree. Timber was usually brought from a distance: it is unlikely that Greek shipbuilding was ever on a scale which used timber faster than the growth of trees could replace it.

Timber-framed building was known to the Minoans, but probably not in Classical and Hellenistic Greece. Timber-framed houses, with overhanging upper storeys and brick or stone infill, are found in parts of northern Greece and the islands. They are mainly urban – there are good examples in Siatista (Macedonia) and Chania and Herakleion (Crete) – and appear to be of the 18th and 19th centuries. In remote country districts outhouses with earth-fast posts and woven wattle walls are still to be seen. Timbers are often built into stone or mud-brick walls as reinforcement. Tile-covered timber roofs of the 19th and early 20th centuries often follow a Roman pattern; there are some large examples on warehouses in Crete. Timber is not often a medium for architecture or decoration in ordinary houses: exceptions are house doors, and the magnificent carved and painted house interiors of the island of Karpathos.

OLIVER RACKHAM

See also **Architecture; Furniture; Ships and Shipping**

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X

XANTHUS

City in Lycia

The river from which the city of Xanthus takes its name appears frequently in Homer's *Iliad* (though it should not be confused with the alternative name for the Scamander). It is where Sarpedon's kingdom is based, and where his body is taken for burial after his death.

In historical times Xanthus was the economic, political, and cultural centre of Lycia down to the Hellenistic period. Subsequently, other cities in Lycia, such as Patara and Myra, came to rival it in importance, but Xanthus remained one of the prime Lycian settlements until the general abandonment of the Lycian cities in the Arab invasion of the 7th century AD. As such, it stands as an epitome of many of the cultural developments and interactions with the Greek world that are to be found generally in Lycia; indeed, it is not unknown for ancient Greek authors to use the terms "Xanthus" and "Lycia" as if they were synonymous.

The best-known Lycian writer of the Classical period, Menecrates, came from Xanthus. Xanthus has one of the earliest examples of sculpture executed by Greek (or Greek-trained) artists to a Lycian commission, the so-called Lion Tomb (6th century BC). The centre of the "dynastic" system of rule was in Xanthus, and it was dynasts associated with Xanthus who were the first to put their portraits on their coinage. They were also the first to use Greek inscriptionally, commissioning poets to compose appropriate lines in praise of them (e.g. the 12-line epigram on the "Inscribed Pillar" at Xanthus of the late 5th century BC, and the poems by Symmachus of Pellana in honour of the dynast Arbinas of the early 4th century BC at the Letoum sanctuary).

The national sanctuary of Lycia was the Letoum, in the territory of Xanthus. Originally this was associated with a manifestation of the Anatolian mother goddess, but later was assimilated to Leto, and so many of the traditions that associated Leto and her children with Lycia are centred upon Xanthus and the Letoum. It was probably here that Alexander was supposed to have discovered a tablet indicating that he would conquer the Persian empire (Plutarch, *Alexander*, 17. 4–5). By the 2nd century BC the Letoum had acquired two large temples, one of Leto and one of Apollo, complementing an earlier late-Classical temple of Artemis; all three temples probably replaced earlier structures.

In the Hellenistic and Roman periods Xanthus, like the rest of Lycia, became further integrated into the Greek world as a whole, acquiring many of the typical features (theatre, etc.) of a Greek polis. An example of how integrated Xanthus was is provided by a unique document of 206/05 BC (*Supplementum epigraphicum Graecum*, 1923– , 38. 1476), recording an appeal made by the Cytenians in Aetolia to the Xanthians, appealing for help from Xanthus on the grounds of mutual kinship, based on their common links with Leto.

After the abandonment of the city in the 7th century AD, Xanthus was largely neglected by westerners until the arrival of Charles Fellows in 1838. His subsequent discoveries, publications, and recovery of antiquities, though ranging through much of Lycia, centred upon Xanthus, and antiquities from Xanthus had pride of place in the "Lycian Room" of the British Museum in the 19th century. The Nereid monument is undoubtedly the most famous of these discoveries. This, commissioned probably by Arbinas as his tomb, was a podium monument, deriving from other earlier Lycian monuments (such as a now destroyed building tentatively identified as a heroon (hero-shrine) of Sarpedon), but incorporating a façade modelled after a Greek temple. It directly influenced the style of the Mausoleum of Halicarnassus, and from that much of later Hellenistic and Roman funerary architecture (and beyond). The monument's sculptures, dancing figures usually identified as Nereids but probably Lycian deities of the dead, and reliefs showing scenes of warfare and the dynast's court, are now held up as typical examples of Greek sculpture of the early 4th century BC, and the Nereid monument has pride of place in the British Museum second only to the Parthenon marbles.

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See also **Lycia**

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XENOPHON *c.*430-*c.* 353 BC

Athenian soldier, philosopher, and historian

Unrivalled in the ancient world for the breadth of his personal experience and the originality of his writing, Xenophon was important to subsequent ages as a Socratic philosopher and an heir to the legacy of Thucydides; as a prose stylist he was central to the Atticist and, later, the Byzantine canons.

Born into a wealthy family during the early years of the Peloponnesian War, he probably saw combat late in the conflict. In his early years he became associated with the circle of individuals who admired Socrates. His aristocratic background, association with Socrates, and an eyewitness feel in the relevant portions of the *Hellenica* encourage the view that he was involved in the government of the Thirty Tyrants immediately following the war (404–403 BC). In the spring of 401 BC he joined the Greek mercenary contingent of the army of Cyrus the Younger, who was attempting to usurp the Persian throne. Following Cyrus' death at the battle of Cunaxa, and the later abduction and murder of the commanders of the Greeks, Xenophon emerged as an important leader. When the mercenaries were absorbed into the Spartan army operating in Asia Minor, Xenophon was as well, and he remained there for the next five years. With the outbreak of the Corinthian War in 395 BC, Xenophon returned to Greece in the company of the Spartan king Agesilaus; he seems to have witnessed first-hand the battle of Coronea (394 BC). Either because of his presence in the Spartan ranks at Coronea, or because of his service with Cyrus, or perhaps both, he was exiled from Athens during this period. Thanks to his Spartan connections, he was granted an estate at Scillus near Olympia (recalled by Leake, 1830, 2. 86), where he lived until Spartan control of the north Peloponnese collapsed after the battle of Leuctra in 371 BC. Although a return to Athens cannot be ruled out (his exile was at some point revoked), he probably lived out his last years in Corinth. He was married and had two sons, one of whom (Gryllus) was killed in combat before the second battle of Mantinea (361 BC). Xenophon died soon after 355 BC.

Xenophon's corpus can be divided into three parts: historical, philosophical, and technical treatises. He wrote up a history of the Greek world from 411 to 362 BC that was known in antiquity as the *Hellenica*; it is in part a continuation of Thucydides' unfinished history of the Peloponnesian War, but takes events down through the Corinthian War, the hegemony and collapse of Sparta, and the rise of Thebes. The *Anabasis* is his account of the march of the 10,000 Greek mercenaries in the service of Cyrus the Younger. The *Cyropaedia* is a quasi-historical work that is in part a proto-novel; it treats the education and life of Cyrus the Great, the founder of the Persian royal house (the Achaemenids). Xenophon also contributed one of the very first biographies in ancient Greek literature, the encomium of his friend king Agesilaus. So far as his philosophical writings are concerned Xenophon is an important figure in the Socratic tradition. In addition to rivalling Plato with an *Apology* and *Symposium*, he wrote up a set of anecdotal remembrances of Socrates known as the *Memorabilia*. Further, Socrates also plays an important but subsidiary role in a work entitled the *Oeconomicus* (Household Management). The *Hieron* is a dialogue that features the tyrant of that name conversing with the poet Simonides on the topic of absolute power (Socrates is not present). Xenophon also wrote a number of smaller, technical works: *Revenues*, the *Cavalry Commander*, *On Horsemanship*, and *On Hunting*. A *Constitution of the Athenians*, traditionally attributed to the "Old Oligarch", was also included in the works of Xenophon in antiquity, but is clearly not by him.

As a participant on the famous *anabasis*, as well as an observer of Greek internecine strife in the years that followed, Xenophon had experience of Panhellenism at first hand, yet he also had a more practical understanding of it than a figure such as Isocrates; while passionately devoted to the principle of an alliance of all the Greeks and the cessation of hostility between Greeks, he also recognized that war was a constant feature of Greek political life. Later historians such as Polybius (2nd century BC) and Arrian (*c.*AD 90–160), who were in a position to make comparisons with the forces of Philip and Alexander, saw the 10,000 in particular as a precursor of the Macedonian army that was to bring to reality dreams of Panhellenism. Arrian, for his part, even considered himself a "second Xenophon", and the title of his account of Alexander's conquests is telling: the *Anabasis of Alexander*. The great orator Dio Chrysostom (1st–2nd century AD) modelled his writing on that of Xenophon. Indeed, Xenophon was widely regarded as the "Attic Muse" for the sweetness of his style (see e.g. Cicero, *Orator*, 32), and was an important model for Atticist writers, even though modern studies have revealed that his work contains many non-Attic features. Xenophon of Ephesus, the novelist of the 2nd century AD, is in fact probably a nom de plume for a writer working in the tradition started by the *Cyropaedia*.

For many in antiquity Xenophon was first a philosopher and second a historian: as Quintilian says in his list of Greek and Roman historians, "I have not forgotten Xenophon, but I think he ought to be included among the philosophers" (*Institutes*, 10. 1.75). His picture of Socrates is fundamentally different from the man we see in Plato: in Xenophon, Socrates is much more a sage interested in the practical issues of day-to-day living, from self-control to the proper training for public life, and to the ordering of the household; his piety is also a common theme. The choice of Heracles between virtue and vice from the *Memorabilia* became a popular subject in later thought and art. The story of Xenophon's first encounter with Socrates was also widely treated. He was an especially popular author with

the Romans, in particular with figures such as Cicero (see, for example, his *Oratore*, 2. 58).

In late antiquity Xenophon's influence diminished somewhat: the pagan Libanius (4th century AD) read him, as did the Church Fathers Basil and John Chrysostom, but the former knew him only indirectly (the choice of Heracles story). In the early Byzantine period his importance was reestablished, in particular as a historian-soldier and prose stylist: the historian Agathias relies on him, as does the Constantinian excerptor later. For men of state who were also writers such as Nikephoros Bryennios (11th–12th century), husband of Anna Komnene and pretender to the throne, he was an especially important model. Manuel II Palaiologos (1391–1425) quotes from his work. Xenophon was among the first ancient Greek authors translated into Latin in the Renaissance, during the papacy of Nicholas V (1446–55). In the modern period his role as commander of the 10,000 was especially cherished: so, for example, the great klepht commander Androutsos (d. 1798) led his men on a march that was popularly compared with the *Anabasis* of Xenophon.

JOHN DILLERY

See also **Biography and Autobiography; Historiography**

Biography

Born *c.*430 BC, Xenophon associated with Socrates in his youth and may have fought at the end of the Peloponnesian War. He was involved in the government of the Thirty Tyrants (404–403) in Athens. In 401 he joined the army of Cyrus the Younger as a mercenary. After Cunaxa (401) Xenophon led the surviving forces back to Byzantium. He then fought for Sparta at Coronea (394) and was exiled from Athens. He was given an estate near Olympia but after Leuctra (371) moved to Corinth where he died *c.*353. His writings include historical and philosophical works and technical treatises.

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Z

ZENO OF CITIUM 335–263 BC

Stoic philosopher

Zeno was the founder of Stoicism, a philosophical movement that had a great impact in the Greek and Roman world of the Hellenistic and imperial age. Stoicism was named after the place where Zeno used to teach in Athens, namely the Stoa Poikile (Painted Porch). Zeno, a Phoenician, came to Athens around 313 BC, and he studied first with Crates the Cynic, then with Stilpo and Diodorus of the Megarian school, and finally with Xenocrates and Polemo of the Academy. He had many students and he was well respected by the Athenians and also by Antigonus Gonatas who often attended his lectures and invited him to his court. His successor in the headship of the Stoic school was Cleanthes, but the most important contribution to Stoicism came later from Chrysippus. From Zeno's numerous writings we have only fragments from much later sources such as Cicero (1st century BC), Diogenes Laertius (2nd century AD), Galen (2nd century AD), and Stobaeus (5th century AD). Famous was his *Republic*, where he argued for a society of the wise who do not need the conventional institutions of a Greek city. The fullest account of his life and his doctrines comes from Diogenes Laertius (7. 1–160).

Zeno is accredited with the tripartite division of philosophy into logic, physics, and ethics. He is said to have started his course with logic, going on to physics, and finishing with ethics. Zeno's prime interest lies in ethics, but this interest motivated a physical enquiry and then an enquiry into logic. Yet all these parts are seen as part of an organic and coherent whole and thus none of them can be studied independently. Zeno's holistic understanding of philosophy results from his attempt to establish a system accounting for all aspects of a coherent and rational universe; reason (*logos*) and nature (*physis*) are the most crucial concepts for the Stoic understanding of the world.

Zeno put considerable emphasis on dialectic which included epistemology. He attempted to argue for the possibility of attaining cognition, an epistemic state midway between belief and knowledge. He argued that to know something is to have grasped it in such a way that one's grasp (*katalepsis*) cannot be shaken by argument. This grasp presupposes perception. Perception strikes our rational principle and generates impressions (*phantasiai*). Nature endowed us with the ability to form impressions of things, and impressions form the content of our mind – actually, rationality develops through them. Thus perception constitutes for Zeno a mental act to which we can give assent. But not all impressions deserve assent. An impression deserves assent if it represents something as it is in reality, namely in such a clear way that it cannot possibly be false (Cicero, *Academicae Quaestiones*, 1. 41). These are cognitive impressions, i.e. they can convey knowledge. Zeno sharply contrasted secure assent (grasp) and weak assent, the latter amounts to ignorance. Yet a cognitive impression does not amount to knowledge; it still has to be confirmed by reason. For Zeno whatever does not qualify as knowledge amounts to ignorance. Accordingly he divided people into two categories, the foolish and the wise, the latter being the only one who knows. No intermediate state exists; unless someone is wise, he is foolish.

Zeno argued for two principles in the universe, the active and the passive. The passive principle is the qualityless (*apoios*) substance, the matter, while the active is the *Logos* in that which is called God (Diogenes Laertius, 7. 134). The whole of the universe is perfect, though destructible and subject to no other force but to itself. It was one of Zeno's fundamental ideas that every productive cause is corporeal and that only corporeal things can act. Thus mind and even God, the active principle, are corporeal. God, identified with fire, is the disposer of the things of nature and maker of the universe; it is also called reason and fate and is the determining force of all things. Zeno's account of nature is strongly teleological and his universe is very determinist; nothing happens in the world but by God's will and in accordance with God's providence. Fate not only governs everything but is defined as the reason by which the world goes on. For this reason divination is possible and can be true.

The world is considered to be a rational and intelligent being, a living organism with its own soul just as man has a soul. Human souls are fragments of the universal soul, man being an organic part of the cosmic whole. Zeno maintained

that both the universal soul and the human soul are corporeal, a warm spirit (*pneuma*), which is the vitalizing force behind both humans and the universe itself. Soul has eight parts, the five senses, the faculties of reproduction and speech, and the rational principle (Diogenes Laertius, 7. 157). As the term of the rational principle suggests (*hegemonikon*, "governing principle"), there is nothing superior to this but this alone determines human life, even when it follows wrong reason. Zeno introduced some new terms to describe psychological or mental functions that take place in the rational principle such as "impulse", a soul's movement as a reaction to an impression. Man is free to follow an impulse by giving assent to an impression.

Zeno thought that philosophy had to show its fruits in ethics. According to Zeno, our goal is to live in accordance with reason, later formulated as living in accordance with nature. The law of nature can guide a man unerringly to virtue. Zeno maintained that virtue is something pertinent, endearing (*oikeion*) to the nature of man in the sense that nature directs man towards the acquisition of virtue. Therefore man should seek after virtue. In seeking virtue man is doing justice to its nature (*oikeiosis*), and being virtuous is a manifestation of one's rationality. Zeno held that only virtue has intrinsic moral value since only virtue is up to us. Therefore virtue is the sole good and the sole constituent of happiness. All other things, however good or bad, are regarded as morally indifferent (*adiaphora*). Within the group of indifferent Zeno distinguished three classes, the preferable, the non-preferable, and the indifferent. Natural advantages such as beauty and wealth are preferable. Accordingly Zeno distinguished between appropriate and perfectly appropriate acts; the first refer to preferable things, while the latter to morally valuable ones. Virtue is said to be one; individual virtues are inseparable and they constitute a state in which their possessor would always do the right thing. The smallest failure makes somebody unvirtuous. To be virtuous is the achievement of the wise man. As is the case with knowledge, so in ethics Zeno does not allow for any degrees of goodness. The wise man never fails in practising virtue, because of his acquired moral expertise; thus the wise man is free from all passions that would have a bad impact on his soul (Cicero, *Academicae Quaestiones*, 1. 39).

Zeno's doctrines were considerably modified by his successors. Yet he enjoyed a venerable status as the founder of the school. Later Stoics such as Posidonius (1st century BC) opposed their predecessors and tried to go back to Zeno's views. Stoic doctrines had an impact on Christian Fathers who shared the Stoic hostility to sceptics and Epicureans. Clement of Alexandria (*c.*AD 150–215) is likely to have had access to Zeno's writings, which by that time must already have become difficult to find.

GEORGE E. KARAMANOLIS

See also **Stoicism**

Biography

Born at Citium in Cyprus in 335 BC, Zeno moved to Athens in 313 to study first under Crates the Cynic, then with Stilpo and Diodorus, and lastly with Xenocrates and Polemo of the Academy. He was founder and head of the Stoic school of philosophy. He was succeeded by Cleanthes. Only fragments of Zeno's writings survive. He died in 263 BC.

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ZOOLOGY

It would not be entirely true to say that no Greek philosopher before Aristotle took an interest in the animal kingdom. Anaximander in the 6th century BC had speculated on the origins of animal life; Empedocles had included animals in his account of the cosmic cycle; and the Hippocratic treatises show some interest in the systematic study of animals in the context of their therapeutic value. None of this, however, shows signs of any but the most superficial observation. Democritus the atomist is credited with a treatise on zoology, but we have no idea what it contained; reports that survive, largely in the works of Pliny, consist of no more than disconnected anecdotes, without a context (indeed it is sometimes doubted whether Pliny's Democritus is the same as the philosopher). Plato's method of division embraces the classification of animals, but they are mentioned hardly at all in his surviving works. His successor Speusippus wrote a work called the *Homoia*, or Similarities, on defining classes on the basis of characteristics that individual members have in common, and he seems to have included animals in this process, but we know little about the work.

The fact that Aristotle, the author of the first surviving zoological treatises, feels the need to defend the study of animals (*On the Parts of Animals*, 644b22–646a4) gives a clue to reasons for the comparative neglect of this field. The imagined objectors against whom he directs his defence (presumably Platonists) regard animals as insignificant and distasteful, and are shocked by the prospect of the unpleasant task of dissection. They prefer the study of grander themes such as astronomy and cosmology, whose subjects are unconditionally beautiful and which admit of a degree of precision and absolute truth not possible in the study of the messier works of nature. Aristotle counters by pointing out that, lowly though they are, animals are at least accessible to close and detailed observation (unlike the heavenly bodies), and argues vigorously that all of the works of nature

show purpose, and contribute to an end, and for that reason are intrinsically beautiful.

Five principal zoological treatises of Aristotle survive: *The History of Animals*, *On the Parts of Animals*, *On the Reproduction of Animals*, *On the Motion of Animals*, and *On the Progress of Animals*. They are, by any standards, remarkable works. Between 500 and 600 different kinds of animals are discussed, sometimes in considerable detail. There is clear evidence of the systematic collection of data throughout Aristotle's career. Place names mentioned suggest that he was already gathering information in northwest Asia Minor and on Lesbos, which he visited in the period between leaving the Academy in Athens and becoming the tutor of the future Alexander III of Macedon. There is no positive evidence from Aristotle's own works to support the suggestion that is sometimes made, both in antiquity and by later writers, that Alexander sent Aristotle interesting specimens gathered as he travelled east into the Persian empire. Nevertheless, the story should not be dismissed out of hand. For example, Aristotle is exceptionally well informed about the diet, capacities, habits, and anatomy of the domesticated elephant, and it may well be that reports on the animal had been sent to him in the course of Alexander's campaigns in the east. Elsewhere, much of his information seems to have been derived from questioning fishermen, herdsmen, beekeepers, and travellers, among others. What is more, there are clear signs that Aristotle dissected a good number of specimens (or at any rate had access to reports of such dissections). He is credited with a work on dissection (now lost), and his extant works contain frequent references, not only to the results of dissection, but also to the technical problems involved (for example, he was aware that an animal killed by having its throat cut will not have its circulatory system in a normal condition, and recommends strangling instead; but his belief that the heart has three rather than four chambers suggests that his own technique may have been just as unsatisfactory). For the most part, however, the care and meticulousness of the observations are very impressive. For example, he describes in detail the development of a chick inside an egg (*The History of Animals*, 561a4–29): after three days, he says, the embryo of the chick can already be seen; later the parts of the body can be distinguished – first the heart and veins, then the head and the eyes; by the tenth day the chick itself is clearly distinguishable (and he describes what can be seen if one of the eyes is dissected); finally, the chick is ready to hatch on the twentieth day. This series of observations could have been made only as the result of a deliberately planned programme of investigation. One of the best known of his systematic descriptions is that of the reproductive system of the dogfish. This fish, like a number of other closely related fishes, bears live young, but Aristotle reported that it is unusual in that before birth the embryo is attached to its mother by a structure similar to the navel-string and placenta in mammals. It was only in 1842, after centuries of scepticism, that it was confirmed (by Johannes Müller) that Aristotle's account was essentially correct.

Impressive though this is, Aristotle is by no means infallible, and his works contain numerous mistakes. Some seem to be the result of simple observational error (such as his belief that a lion's neck contains only one bone, or that the heart has only three chambers). Sometimes, he seems to have been misled by fanciful travellers' tales (such as the report that hares invariably die if they are imported into Ithaca, or that the bite of the gecko is fatal in Italy). More significantly, he sometimes misleads himself by the inappropriate application of general principles, as when he argues that worker bees are neither male nor female, on the grounds that no female animal has defensive weapons (and worker bees have a sting), and no male animals care for their young (as worker bees do). Applying the same principles to queens (or ''kings'', as Aristotle calls them) and drones, he concludes that all three kinds of bee reproduce parthenogenetically, from their own kind. It must, however, be said, in Aristotle's defence, that the task of sexing a bee, using the resources he had available, would be by no means an easy one.

It is not at all clear what Aristotle thought was going to be the end result of his zoological researches. Although there is certainly evidence of systematic collection of material, the actual arrangement of the pieces of information in his zoological works shows no obvious system; facts are roughly grouped together by topics, but the structure of the classification remains obscure. It is too easy to assume that Aristotle was aiming at the sort of classification of animals that biologists, following Linnaeus, achieved from the 18th century onwards. Though Aristotle's work can undoubtedly be regarded as the foundation on which later scientists built, it may well be that his own purposes were quite different from theirs, and that his collection of zoological facts was actually intended to be the raw material for his study of the purposive working out of nature's goals, or for an exercise in putting into practice his logical theories. Even so, the quality of his empirical investigations remains impressive, and without precedent until modern times.

After Aristotle, his pupils and associates continued with his work (and indeed it is likely that many of Aristotle's zoological treatises were themselves the result of collaborative work). His successor Theophrastus wrote *On the Character and Intelligence of Animals*, and a number of other works on the behaviour of different classes of animal, all of which have been lost. One short zoological work of Theophrastus, however, *On Fish*, does survive. It deals with the apparent anomaly of fish and other sea creatures which can sometimes be found surviving on dry land, or may even be dug up out of the ground, and shows evidence of careful observation of a variety of species. Theophrastus' successor as head of the Lyceum, Strato of Lampsacus, is also credited with works on zoology.

In the Hellenistic period some physicians (Herophilus, for example) seem to have taken an interest in comparative anatomy, and the surgeon Sostratus (1st century BC) is credited with the books *On Animals*, *On the Nature of Animals*, and *On Animals Which Sting and Animals Which Bite*. Dissection of animals later became a standard tool of medical research, but the real centre of interest is the human being. The same can be said of later writings on animal behaviour, which was of interest only in so far as it illuminated or provided models for human behaviour. Epicurus, for example, cited the alleged fact that animals invariably seek pleasure and avoid pain as proof that hedonism is natural (and his opponents the Stoics used animal examples to assert the opposite). Similarly, Plutarch investigated the question of whether animals are capable of exercising reason. This tradition was continued by Christian writers such as Origin and Basil of Caesarea, who used reports of animal behaviour derived from Aristotle and other Greek writers to illustrate moral arguments and as symbols representing theological positions.

The *Natural History* of the Roman writer Pliny the Elder contains a mass of facts about various animals, treated mostly as interesting curiosities without serious attempts at classification, and the same can be said of *On the Nature of Animals* and *Varia Historica* of Aelian. Both draw extensively on the writings of earlier Greek zoologists (indeed, more than two-thirds of Pliny's sources are Greek). The ultimate source of much of their information seems to be Aristotle himself, but these later writers seem not to have consulted his texts (or those of other authorities such as Theophrastus) directly, but to have used collections of excerpts (such as that of Pamphilius), summaries (such as that of Aristophanes of Byzantium), or works which are heavily dependent on earlier sources (such as Alexander of Myndos's *On Animals*). In other words, their works are in no way empirical studies, but are purely literary compilations drawing on reference works. It is in fact this moralizing and anecdotal tradition of zoology that passed on into the Middle Ages; it was only with the scientific revolution of the 17th century that Aristotle's systematic studies became the foundation of modern zoology.

RICHARD WALLACE

See also **Animals**

Further Reading

Fortenbaugh, William W. and Dimitri Gutas (editors), *Theophrastus: His Psychological, Doxographical, and Scientific Writings*, New Brunswick, New Jersey: Transaction, 1992.

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Notes on Advisers and Contributors

Anderson, Michael J. Assistant Professor of Classics, Yale University. Author of *The Fall of Troy in Early Greek Poetry and Art* (1997). Contributor to *Journal of Hellenic Studies* and *Classical Philology.* **Essays:** Achilles Tatius, Bacchylides.

Arnaoutoglou, I.N. Researcher, Academy of Athens, Research Centre for the History of Greek Law. Former Assistant Editor of *Lexicon of Greek Personal Names.* Author of *Ancient Greek Laws* (1998). Contributor to *Cosmos* (1998) and to the journals *Zeitschrift für Papyralogie und Epigraphik, Ancient Society, Journal of Juristic Papyrology,* and *Revue Internationale des Droits de l'Antiquité.* **Essays:** Adoption, Law.

Ash, Rhiannon. Lecturer, Department of Greek and Latin, University College London. Author of "Severed Heads: Individual Portraits and Irrational Forces in Plutarch's *Galba and Otho"* in *Plutarch and His Intellectual World,* edited by Judith Mossman (1997) and *Ordering Anarchy: Leaders and Armies in Tacitus'* Histories (1999). **Essays:** Appian, Cassius Dio, Nero, Plutarch.

Asheri, David. Late Professor Emeritus, Hebrew University of Jerusalem. Author of *Distribuzioni di terre nell'antica Grecia* (1966), *Leggi greche sul problema dei debiti* (1969), *Fra ellenismo e iranismo* (1983), and *Eradoto: Le storie, Libro I* (1988), *Libro III* (1990). Co-editor of *I Greci* (1996–2000). **Essays:** Arrian, Hieronymus of Cardia, Posidonius.

Aspraki, Gabriella-Evangelia. Freelance researcher. **Essays:** Emigration, Village Society.

Austin, Michel. Senior Lecturer in Ancient History, University of St Andrews. Author of *Greece and Egypt in the Archaic Age* (1970), *Economies et sociétés en Grèce ancienne* (with P. Vidal-Naquet, 1973), and *The Hellenistic World from Alexander to the Roman Conquest* (1981). Contributor to the *Cambridge Ancient History* and to *War and Society in the Greek World,* edited by John Rich and Graham Shipley (1993). **Essays:** Antiochus III, Seleucids.

Avotins, Ivars. Professor of Classical Studies, University of Western Ontario. Author of *An Index to the Lives of the Sophists of Philostratus* (1978), *Index in Eunapii Vitas Sophistarum* (1983), *On the Greek of the Code of Justinian* (1989), and *On the Greek of the Novels of Justinian* (1992). Contributor to *Classical Quarterly, Glotta, Hermes, Rheinisches Museum, Transactions of the American Philological Association,* and *Phoenix.* **Essay:** Herodes Atticus.

Bäbler, Balbina. Freelance researcher. Author of *Fleissige Thrakerinnen und wehrhafte Skythen: Nichtgriechen im klassischen Athen und ihre archäologische Hinterlassenschaft* (1998) and of articles on Herodotus and the Zeus of Phidias. Contributor to *Der Neue Pauly and Bryn Mawr Classical Review.* **Essays:** Acragas, Chersonese, Chersonesus, Dyrrachium, Healing Cults, Metics, Olbia, Pausanias, Phidias, Slavery.

Barber, Robin L.N. Honorary Fellow, Department of Classics, University of Edinburgh. Author of *The Cyclades in the Bronze Age* (1987), the Blue Guides to *Greece* (1989), *Rhodes and the Dodecanese* (1997), and *Athens* (1999), and articles on Greek art and archaeology. **Essays:** Altars, Cyclades, Dodecanese, Megara, Obsidian, Pottery, Sanctuaries, Santorini, Votive Offerings.

Bastéa, Eleni. Visiting Associate Professor, Comparative Literature, Washington University, St Louis. Author of *The Creation of Modern Athens: Planning the Myth* (2000). Contributor to *Cities: Critical Perspectives on Public Space,* edited by Zeynep Celik *et al.* (1994) and *Greek Society in the Making,* 1863–1913: *Realities, Symbols, Visions,* edited by Philip Carabott (1997). Member of the editorial board, *Journal of Architectural Education.* **Essays:** Architecture (domestic), Architecture (public), Cities, Town Planning.

Beaumont, Lesley A. Lecturer in Classical Archaeology, University of Sydney. Former Assistant Director, British School at Athens. Co-director of the Kato Phana Archaeological Project on Chios. Contributor to *The Sacred and the Feminine in Ancient Greece,* edited by Sue Blundell and Margaret Williamson (1998), and *Children and Material Culture,* edited by J. Sofaer Derevenski (in preparation). Author of articles on the archaeology of Chios and the iconography and social history of children and childhood in ancient Greece. **Essays:** Chios, Family, Smyrna.

Beck, Hans. Assistant Lecturer at the University of Cologne. Author of *Polis und Koinon: Untersuchungen zur Geschichte und Struktur der griechischen Bundesstaaten im* 4. *Jahrhundert v. Chr.* (1997). **Essays:** Federal States, Military League.

Blanchette, Scott. Defense Analyst, Global Research Corporation International. Intern to the editor, *Journal of Military History,* and contributor to the *Journal of Southwest Military History.* **Essay:** Bureaucracy.

Boardman, Sir John. Professor Emeritus of Classical Archaeology and Art, Oxford University. Author of *Greeks Overseas* (1964, 1999), *Greek Art* (1964, 1997), *Greek Gems and Finger Rings* (1970, 2000), *Diffusion of Classical Art in Antiquity* (1994), *Persia and the West* (2000), and of several handbooks on Greek vases and sculpture and many other books on Greek archaeology and art.

Borthwick, E. Kerr. Professor Emeritus, University of Edinburgh. Contributor to the *New Grove Dictionary of Music* and to *Classical Review, Classical Quarterly, Journal of Hellenic Studies, American Journal of Philology, Classical Philology, Hermes, Mnemosyne, Phoenix, Greece and Rome,* and *Music and Letters.* **Essay:** Dance.

Bowman, Steven B. Professor of Judaic Studies, University of Cincinnati. Author of *The Jews of Byzantium,* 1204–1453

(1985), "Josephus in Byzantium" in *Josephus, Judaism and Christianity,* edited by Louis H. Feldman and Gohei Hata (1987), and "Yosippon and Jewish Nationalism" in *Proceedings of the American Academy for Jewish Research* (1995). Editor of *Birkenau: The Camp of Death* (with Marco Nahon, 1989) and of *In Iure Veritas: Studies in Canon Law in Memory of Schafer Williams* (1991). Contributor to the *Oxford Dictionary of Byzantium* (1991) and *Encyclopedia of the Holocaust.* Book review editor of *Byzantine Studies/Etudes Byzantines* and of *Journal of the Hellenic Diaspora.* **Essay:** Jews.

Boyd, Michael J. Researcher. Author of *Middle Helladic and Early Mycenaean Mortuary Practices in the Southern and Western Peloponnese,* British Archaeological Reports (in preparation). **Essays:** Copais, Phaestus.

Braund, David. Professor of Black Sea and Mediterranean History, University of Exeter. Author of *Rome and the Friendly King* (1984), *The Administration of the Roman Empire* (1988), *Georgia in Antiquity* (1994), and *Ruling Roman Britain* (1996). Member of the editorial board of *Ancient Civilizations from Scythia to Siberia.* **Essays:** Athenaeus, Georgia, Ukraine.

Brosius, Maria. Research Associate, Centre for the Study of Ancient Documents, Oxford. Author of *Women in Ancient Persia, 559–331 BC* (1996) and *The Persian Empire from Cyrus I to Artaxerxes I* (2000). Co-editor of *Studies in Persian History: Essays in Memory of David M. Lewis* (1998); editor of *Archives and Archival Traditions: Concepts of Record-Keeping in the Ancient World* (in preparation). **Essays:** Bactria, Parthians, Persian Wars, Persians, Sassanians.

Brown, Christopher G. Chair, Department of Classical Studies, University of Western Ontario. Author of articles on Greek epic, lyric, drama, and religion. Contributor to *A Companion to Greek Lyric Poetry* (1997). **Essays:** Dithyramb, Poetry (Epic, antiquity), Poetry (Lyric, antiquity).

Bryer, Anthony A.M. Emeritus Professor of Byzantine Studies, University of Birmingham. Former Chairman of the British National Committee of the International Byzantine Association, and Convenor of the 21st International Byzantine Congress, Britain (2006). Author of *The Empire of Trebizond and the Pontos* (1980), *The Byzantine Monuments and Topography of the Pontos* (with David Winfield, 1985), *Peoples and Settlement in Anatolia and the Caucasus* (1986), and *The Post-Byzantine Monuments of the Pontos* (2000). **Essays:** Pontus, Trebizond.

Buckler, John. Professor of Greek History, University of Illinois. Author of *The Theban Hegemony, 371–362 BC* (1980), *Philip II and the Sacred War* (1989), and of articles on Greek history of the 4th century BC. Editor, with Hartmut Beister, of *Boiotika: Vorträge vom 5. Internationalen Böotien-Kolloquium zu Ehren von Professor Dr Siegfried Lauffer* (1989). Contributor to *American Historical Association's Guide to Historical Literature* (1995) and *The Oxford Classical Dictionary* (3rd edition 1996). **Essays:** Agesilaus II, Boeotia, Epaminondas, Marathon, Philip II, Thebes.

Buckton, David. Fellow of the Courtauld Institute of Art, University of London; Leverhulme Emeritus Fellow. Former Curator of Early Christian and Byzantine Antiquities, British Museum. Author of *Catalogue of the Medieval Enamels in the British Museum,* I: *Byzantine and Early Medieval Western Enamel* (in preparation) and of articles on Byzantine enamels. Editor of *The Treasury of San Marco, Venice* (1984), *Studies in Medieval Art and Architecture, Presented to Peter Lasko* (with T.A. Heslop, 1994), and *Byzantium: Treasures of Byzantine Art and Culture* (1994). **Essay:** Enamel.

Budin, Stephanie Lynn. Graduate Student, University of Pennsylvania. Author of articles on gender and sexuality in the ancient Greek world. **Essays:** Gender, Women.

Carras, Costa. Vice-Chairman of Europa Nostra (Confederation of European Conservation Organizations). Author of *3000 Years of Greek Identity: Myth or Reality?* (1983) and of articles on the relation between Christian doctrine and the secular world. Co-editor of *Living Orthodoxy* (1996). Contributor to *Democracy and Civil Society in the Balkans* (1996). **Essay:** Identity.

Carson, Jeffrey. Professor of Literature and of Art History, Aegean Center for the Fine Arts. Author or editor of *Six and One Remorses for the Sky* (1972), *Paros* (with James Clark, 1977),49 *Scholia on the Poems of Odysseus Elytis* (1983), *The Temple and the Dolphin* (1995), *The Collected Poems of Odysseus Elytis* (1997), and *Poems 1974–1996* (1997). **Essays:** Menander, Scopas.

Champion, Craige. Assistant Professor of History and Classical Languages, Allegheny College. Contributor to *Phoenix, American Journal of Philology, Historia, Transactions of the American Philological Association,* and *Bryn Mawr Classical Review.* **Essay:** Aetolia.

Cheal, Catheryn, L. Adjunct Professor, California State University, Northridge. Author of articles on Hellenistic clay sculptures and the coins of Selinus. Contributor to *Classical World.* **Essays:** Furniture, Silk.

Christesen, Paul. Assistant Professor of Classics, Dartmouth College, New Hampshire. **Essays:** Finance, Taxation, Transhumance.

Clay, Diskin. Professor of Classical Studies, Duke University. Author of *Lucretius and Epicurus* (1983), *Lucian of Samosata: Four Philosophical Lives* (1992), and *The Philosophical Inscription of Diogenes of Oenoanda* (1990), *Paradosis and Survival: Three Chapters in the History of Epicurean Philosophy* (1998), *Four Island Utopias* (with Andrea Purvis, 1999), and *Platonic Questions: Dialogues with the Silent Philosopher* (2000). Translator of *Philodemus: On Frank Criticism* (1988). Editor of the *American Journal of Philology.* **Essay:** Heroes and Heroines.

Conley, Thomas M. Professor of Speech Communication, University of Illinois, Urbana. Author of *Rhetoric in the European Tradition* (1990), *Byzantine Culture in Renaissance and Baroque Poland* (1994), "Byzantine Literary Criticism and the Uses of Literature" in *The Cambridge History of Literary Criticism,* vol. 2, edited by A. Minnis (in preparation), and an article on Aristotle's *Rhetoric* in Byzantium. **Essays:** Aristotelianism, Rhetoric, Second Sophistic, Sophists.

Conomos, Dimitri. Visiting Professor, Royal Halloway and Bedford New College, University of London. Director of Studies, Academy of Theological Studies, Volos, Greece. Author and editor of publications for Syndesmos (the World

Fellowship of Orthodox Youth) and the World Council of Churches.

Crowther, Nigel B. Associate Professor of Classical Studies, University of Western Ontario. Contributor to *Classical Quarterly, Greece and Rome, Phoenix, Nikephoros, American Journal of Philology, Mnemosyne, Eranos, Journal of Hellenic Studies,* and *Classical Philology.* **Essay:** Olympia.

da Costa, Virginia M. Assistant Professor of Art History, West Chester University, Pennsylvania. Author of articles on Renaissance portrait medals and Roman relief carvings and coins. Editor and curator of *Mothers, Maidens, Sirens and Slaves: Images of Women in the Ancient World* (1996). **Essays:** Painting (antiquity), Portraiture, Purple.

Dalby, Andrew. Author of *Siren Feasts: A History of Food and Gastronomy in Greece* (1996) and of *Empire of Pleasures: Luxury and Indulgence in the Roman World* (2000). Editor and translator of *Cato: On Farming* (1998). **Essays:** Fairs and Markets, Food and Drink, Libraries, Oral Tradition, Symposium.

De Chaves-Chronopoulos, Lila. Ethnologist, Curator of the Jewellery workshop, Benaki Museum, and Consultant of ELKA (the Greek National Goldsmiths Centre). Author of *Greek Jewellery in Space and Time: History of the Art and Craft* (1994), and of articles on Coptic textiles, lace, and traditional costumes. Editor of *Friends of the Benaki Museum Bulletin.* Vice-President, UNESCO International Committee for the Preservation and Promotion of Folk Art and Culture. **Essay:** Metalwork.

Dickey, Eleanor. Assistant Professor of Greek, Columbia University. Author of *Commentary on Selected Odes of Pindar* (1991) and *Greek Forms of Address: From Herodotus to Lucian* (1996). Contributor to *Mnemosyne, Classical Quarterly, Language in Society,* and *Journal of Linguistics.* **Essays:** Homer, Josephus, Language, Lucian, Satyr Play.

Dijk, Gert-Jan van. Professor of Greek, Catholic University of Nijmegen and Amsterdam Free University. Author of "De theorie van de fabel in de Griekse Oudheid" in *Mijn naam is haas: Dierenverhalen in verschillende culturen,* edited by W.L. Idema, M. Schipper, and P.H. Schrijvers (1993), "Greek Fable Theory after Aristotle: Characters and Characteristics" in *Greek Literary Theory after Aristotle: A Collection of Papers in Honour of D.M. Schenkeveld,* edited by J.G.J. Abbenes, S.R. Slings, and I. Sluiter (1995), and *Ainoi, Logoi, Muthoi: Fables in Archaic, Classical, and Hellenistic Greek Literature* (1997). Contributor to *Mnemosyne.* **Essays:** Aesop, Babrius, Fable.

Dillery, John. Associate Professor of Classics, University of Virginia. Author of *Xenophon and the History of His Times* (1995). Editor of the 1998 Loeb edition of Xenophon's *Anabasis.* Contributor to *Classical Philology, Historia, Classical Quarterly, Zeitschrift für Papyrologie und Epigraphik,* and *American Journal of Philology.* **Essays:** Isocrates, Theopompus, Xenophon.

Dover, Sir Kenneth. Chancellor of St Andrews University. Author of *Greek Word Order* (1960), *Lysias and the Corpus Lysiacum* (1968), *Greek Popular Morality in the Time of Plato and Aristotle* (1974), *Greek Homosexuality* (1978), *Greek and the Greeks* (1987), *The Greeks and Their Legacy* (1988), *Marginal Comment* (1994), and *The Evolution of Greek Prose Style* (1997). Co-author of *Historical Commentary on Thucydides,* vols 4 and 5 (1970 and 1980) and *Ancient Greek Literature* (1980). Editor of *Clouds* (1968) and *Frogs* (1993) by Aristophanes, *Select Poems* by Theocritus (1971), and *Perceptions of the Ancient Greeks* (1992). **Essays:** Aristophanes, Lysias, Thucydides.

Drosos, Fr Nektarios. Priest. Author of book on hagiography and articles on Thessalian history. **Essay:** Olympus.

Edwards, Mark. University Lecturer in Patristics, Oxford University. Co-author of *Portraits: Biographical Representation in the Greek and Latin Literature of the Roman Empire* (with S. Swain, 1997). Editor and translator of *Philoponus: Commentary on Aristotle, Physics III* (1994) and *Optatus: Against the Donatists* (1997). Contributor to the *Journal of Theological Studies.* **Essays:** Alchemy, Carneades, Cynics, Origen, Paul.

Edwards, Michael J. Senior Lecturer in Classics, School of English and Drama, Queen Mary and Westfield College, University of London. Author of *Companion to Plutarch, Lives of Pompey, Caesar and Cicero* (1991), and *The Attic Orators* (1994). Editor of *Greek Orators,* vol. I: *Antiphon and Lysias* (with S. Usher, 1985), *Greek Orators,* vol. 4: *Andocides* (1995), and *Lysias: Five Speeches* (1999). **Essays:** Aeschines, Demosthenes, Judicial Procedures, Magistrates, Ostracism, Political History 490–323 BC.

Erskine, Andrew. Senior Lecturer, Department of Classics, University College, Dublin. Author of *Hellenistic Stoa: Political Thought and Action* (1990) and *Troy between Greece and Rome: Local Tradition and Imperial Power* (in preparation). **Essay:** Polybius.

Evans, J.D.G. Professor of Logic and Metaphysics, Queen's University of Belfast. Author of *Aristotle's Concept of Dialectic* (1977), *Aristotle* (1987), and *Moral Philosophy and Contemporary Problems* (1987). Contributor to the *Cambridge Philological Society, Journal of Hellenic Studies, Classical Review, Aristotelian Society Proceedings,* and *Philosophical Quarterly.* **Essays:** Dialectic, Parmenides.

Evans, James Allan. Professor Emeritus, University of British Columbia. Author of *A Social and Economic History of an Egyptian Temple in Greco-Roman Egypt* (1961), *Procopius* (1972), *Herodotus* (1981), *Herodotus, Explorer of the Past: Three Essays* (1991), *The Age of Justinian: The Circumstances of Imperial Power* (1996), and a book on the empress Theodora (in preparation). **Essays:** Leonidas, Magna Graecia, Sicily, Syracuse.

Evely, Don. Freelance research archaeologist. Author of *Minoan Crafts: Tools and Techniques* (1993). Co-editor of *Knossos: A Labyrinth of History* (1994) and *Minotaur and Centaur* (1996). **Essays:** Knossos, Minoans.

Fernandes, Eugénie. Lecturer at the University of Liverpool and Member of King's College, Cambridge. **Essays:** Adultery, Antiquity, Children, Disease, Divorce, Dowry, Marriage, Prostitution, Spells.

Fiedler, Barbara. Lecturer in Classics, George Washington University. Author of "Ritual Innovation and Political Change in Iron Age Greece" in *Papers of the World Archaeological Congress, Southampton* (1986). **Essays:** Canals, Land Tenure, Water Management.

Fleming, K.E. Assistant Professor of History and Hellenic Studies, New York University. Author of *The Muslim Bonaparte: Diplomacy and Orientalism in Ali Pasha's Greece* (1999) and of articles on Turkish and Greek history. Book editor, *Southeast European Monitor.* **Essay:** Ioannina.

Foley, Anne. Associate Professor, Classics Department, Queen's University, Kingston, Ontario. Author of *Argos and the Argolid, 800–600 BC: An Archaeological Survey* (1988), "Idle Speculation about Argos? Some Thoughts on the Present State of Eighth and Seventh Century Argive Studies" in *Klados: Essays in Honour of Professor J.N. Coldstream, BICS,* edited by C. Morris and A. Peatfield (1995), "Ethnicity and the Topography of Burials in the Geometric Period", *Argos et l'Argolide: Topographie et urbanisme,* edited by A. Pariente and G. Touchais (1998), and "Pheidon of Argos: A Reassessment" in *Argolo-Korinthiaka I,* edited by J. Fossey and P.J. Smith (1999). Contributor to *Excavations in the Levendis Sector at Asine, 1973–1974 and 1989*, edited by R. Hägg and G. Nordquist (in preparation). **Essays:** Archaic Period, Geometric Period, Nauplia.

Foss, Clive. Professor of History, University of Massachusetts. Author of *Byzantine and Turkish Sardis* (1976), *Ephesus after Antiquity* (1979), *Roman Historical Coins* (1990), and *Nicaea* (1996). **Essays:** Ephesus, Nicaea.

French, Elizabeth. Co-author of *The Mycenae Atlas* (in preparation). Co-editor of *Well Built Mycenae.* **Essays:** Mycenae, Mycenaeans, Pylos, Tiryns.

Frend, William H.C. Retired Professor and Clerk in Holy Orders; currently, Bye-Fellow of Gonville and Caius College. Author of *The Donatist Church: A Movement of Protest in Roman North Africa* (1952, 1985), *Martyrdom and Persecution in the Early Church* (1965), *The Early Church* (1965,1991), *The Rise of the Monophysite Movement* (1972, 1979), *The Rise of Christianity* (1984), and *The Archaeology of Early Christianity* (1996). **Essays:** Gortyn, Nicopolis.

Gardikas, Katerina. Teacher of History in the Department of Journalism and Mass Communication, Aristotle University, Thessalonica. Author of "The Changing Language of Political Contention" in *Greek Society in the Making, 1863–1913*: *Realities, Symbols and Visions,* edited by Philip Carabott (1997) and *Protasia kai eggyiseis* [Protection and Guarantees] (1999), Contributor to *Balkan Studies* and *Deltiou tou Kentrou Erevnis Istorias Neoterou Ellinismou* (1998). **Essay:** Thessalonica.

Garland, Robert. Roy D. and Margaret B. Wooster Professor of the Classics, Colgate University. Author of *The Greek Way of Death* (1985), *The Piraeus* (1987), *The Greek Way of Life* (1990), *Introducing New Gods* (1992), *Religion and the Greeks* (1994), *The Eye of the Beholder* (1995), and *Daily Life of the Ancient Greeks* (1998). **Essays:** Afterlife, Death, Hades, Piraeus, Priesthood, Travel.

Garrett, Martin. Writer and lecturer. Author of *Massinger: The Critical Heritage* (1991), *Greece: A Literary Companion* (1994), *Sidney: The Critical Heritage* (1996), *Traveller's Literary Companion to Italy* (1998), *A Browning Chronology: Elizabeth Barrett Browning and Robert Browning* (1999), and *George Gordon, Lord Byron* (2000). **Essays:** Corfu, Hadrian, Hieron I, Rome.

Georganas, Ioannis. Research Student at the University of Nottingham. Contributor to *Corpus: Magazine of Archaeology and History.* **Essay:** Trade.

Gill, David W.J. Senior Lecturer in Ancient History, University of Wales, Swansea. Author of *Artful Crafts: Ancient Greek Silverware and Pottery* (with Michael Vickers, 1994). Editor of *The Book of Acts in Its First Century Setting,* vol. 2: *Graeco-Roman Setting* (with Conrad Gempf, 1994). Contributor to *The Oxford Classical Dictionary* (3rd edition 1996), *The Cambridge Illustrated History of Archaeology,* edited by P.G. Bahn (1996), and to the *American Journal of Archaeology, Annual of the British School at Rome, Antiquity, International Journal of Nautical Archaeology and Underwater Exploration, Jahrbuch des deutschen archäologischen Instituts, Journal of Hellenic Studies, Libyan Studies, Mitteilungen des deutschen archäologischen Instituts: Römische Abteilung, Oxford Journal of Archaeology, Revue des Etudes Anciennes,* and *Revue Archéologique.* **Essays:** Cyrenaica, Lysippus, Mines and Quarries, Pastoralism, Praxiteles, Sculpture.

Given, Michael. Research Fellow, Department of Archaeology, University of Glasgow. Co-author of *Under the Clock: Colonial Architecture and History in Cyprus* (1995). Contributor to *Journal of Mediterranean Studies, Journal of Mediterranean Archaeology, Levant, Deus Loci* and *Report of the Department of Antiquities, Cyprus.* **Essay:** Cyprus.

Gkamas, Dimitrios. Doctoral candidate, Manchester Business School. Contributor to *Money (Greece)* and *Money and Market (Greece).* **Essays:** Banking, Patras.

Gounaris, Basil C. Head of Research Department, Museum of the Macedonian Struggle. Author of *Steam over Macedonia* (1993) and *Stis Ochthes tou Ydragora* [On the Banks of Ydragoras] (2000). Editor of *Taftotites Sti Makedonia* [Identities in Macedonia] (1997). Contributor to *Journal of Modern Greek Studies, Balkan Studies, East European Quarterly, Journal of Byzantine and Modern Greek Studies, Review, Makedhonika,* and *Ellinika.* **Essay:** Macedonia.

Graham, Daniel W. Professor of Philosophy, Brigham Young University. Author of *Aristotle's Two Systems* (1987). Editor of Gregory Vlastos, *Studies in Greek Philosophy* (1995). Translator of Aristotle's *Physics, Book VIII.* (1999). Contributor to *Philosophical Quarterly, Archiv für Geschichte der Philosophie, Journal of the History of Ideas, Journal of the History of Philosophy, Classical Quarterly, American Journal of Philology, Oxford Studies in Ancient Philosophy, Apeiron, Phronesis,* and *Ancient Philosophy.* **Essays:** Cosmology, Empedocles, Heraclitus.

Greenfield, Richard P.H. Associate Professor, Department of History, Queen's University, Kingston, Ontario. Author of *Traditions of Belief in Late Byzantine Demonology* (1988), "Sorcery and Politics at the Byzantine Court in the Twelfth Century: Interpretations of History" in *The Making of Byzantine History: Studies Dedicated to Donald M. Nicol,* edited by R. Beaton and C. Roueché (1993), "A Contribution to the Study of Palaeologan Magic" in *Byzantine Magic,* edited by H. Maguire (1995), "The Wayside Shrines of the Argolid" in *Argolo-Korinthiaka I,* edited by J. Fossey and P.J. Smith (1999), and *The Life of St Lazaros Galesiotes* (2000). **Essays:** Divination, Evil Eye, Magic, Necromancy.

Grond, Maarten J. Teacher of classical languages at the Sint Maartens College, Maastricht. Contributor to *Nestornieuws.* **Essays:** Kalamata, Messene.

Haldon, John. Professor of Byzantine History and Director of the Centre for Byzantine, Ottoman and Modern Greek Studies, University of Birmingham. Author of *Recruitment and Conscription in the Byzantine Army c.550–950*: *A Study of the Origins of the Stratiotika Ktemata* (1979), *Byzantine Praetorians* (1984), *Byzantium in the Seventh Century* (1990), *State, Army and Society in Byzantium: Approaches to Military, Social and Administrative History, 6th–12th Centuries* (1995), and *Warfare, State and Society in Byzantium 550–1204* (1999). Editor of *Byzantine and Modern Greek Studies.*

Hall, Jonathan M. Assistant Professor, Departments of History and Classics, University of Chicago. Co-author of "Achaian Poleis and Achaian Colonization" in *Introduction to an Inventory of Poleis,* edited by M.B. Hansen (1996). Author of *Ethnic Identity in Greek Antiquity* (1997), "Sparta, Lakedaimon and the Nature of Perioikic Dependency" in *Further Studies on the Ancient Greek Polis,* edited by P. Flensted-Jensen (2000), and of articles on ethnicity in *Proceedings of the Cambridge Philological Society* and *Omnibus,* and on Argive archaeology and history in the *American Journal of Archaeology.* **Essays:** Aeolians, Colonization, Dark Age, Dorians, Hellenes, Ionians, Political History to 490 BC.

Hamblet, Wendy C. Advanced Graduate Student in Philosophy, Pennsylvania State University. Contributor to *Face to Face with the Real World: Contemporary Applications of Levinas* (in preparation), *Eidos,* and *Philosophical Writings.* **Essay:** Ancestor Worship.

Hanson, Victor Davis. Professor of Greek, California State University, Fresno. Author of *Warfare and Agriculture in Classical Greece* (1983, 1998), *The Western Way of Warfare* (1989, 2000), *The Other Greeks* (1995, 1999), *Fields without Dreams* (1996), *Who Killed Homer? The Demise of Classical Education and the Recovery of Greek Wisdom* (with John Heath, 1998, 2000), *The Wars of the Ancient Greeks* (1999) and *The Soul of Battle* (1999). Member of the editorial board of *Arion* and *Military History Quarterly.* **Essays:** Oligarchy, Vine, Warfare (Antiquity).

Hardwick, Lorna. Senior Lecturer in Classical Studies, The Open University. Author of "Convergence and Divergence in Reading Homer" in *Homer: Readings and Images* (1992) edited by with C. Emlyn-Jones, L. Hardwick, and J. Purkis, "Ancient Amazons: Heroes, Outsiders or Women?" in *Women in Antiquity,* edited by I. McAuslan and P. Walcot (1996), "A Daidalos in the Late Modern Age? Transplanting Homer into Derek Walcott's The Odyssey: A Stage Version" in *Proceedings of the January Conference: The Reception of Classical Texts and Images* (1996), *Translating Words: Translating Cultures* (in preparation), and articles on Greek social and cultural history and literature. Contributor to the *International Journal of the Classical Tradition.* Editor of *Reception of the Texts and Images of Ancient Greece* database (http://www2.open.ac.uk/ClassicalStudies/GreekPlays/index.html). Member of the European Network of Research and Documentation of Greek Drama. **Essay:** Tragedy.

Harrison, Thomas. Lecturer in Ancient History, School of Greek, Latin and Ancient History, University of St Andrews. Author of *Divinity and History: The Religion of Herodotus* (2000), *The Emptiness of Asia: Aeschylus' Persians and the History of the Fifth Century* (2000), *Greek Religion: Belief and Experience* (in preparation), and articles on ancient historiography. Editor of *Greeks and Barbarians* (in preparation). Series editor of the Duckworth Classical Essays, Duckworth Companions to Ancient Tragedy, and Duckworth Archaeological Histories. Joint series editor for *Readings in the Ancient World,* Edinburgh University Press. **Essays:** Foreigners, Herodotus, Religion, Tyranny.

Henig, Martin. Visiting Lecturer in Roman Art, University of Oxford. Editor of *A Handbook of Roman Art* (1983). Author of *Religion in Roman Britain* (1984), *The Content Family Collection of Ancient Cameos* (1990), *Roman Sculpture from the Cotswold Region* (1993), *Classical Gems: Ancient and Modern Cameos in the Fitzwilliam Museum, Cambridge* (1994), *The Art of Roman Britain* (1995), and *Roman Oxfordshire* (with Paul Booth, 2000). Editor of *Classicism to Neo-Classicism: Essays Dedicated to Gertrud Seidmann* (with Dimitris Plantzos, 1999). Honorary editor of *Journal of the British Archaeological Association.* **Essay:** Gems and Seals.

Hetherington, Paul. Retired. Author of *The "Painter's Manual" of Dionysius of Fourna* (1974, 1997), *Byzantium* (1981), and *Byzantine and Medieval Greece: Churches, Castles and Art* (1991). Contributor to *Apollo, Arte Veneta, Burlington Magazine, Byzantinische Zeitschrift, Cahiers Archéologiques, Dumbarton Oaks Papers, Gazette des Beaux-Arts, Jahrbuch der Österreichischen Byzantinistik, Journal of the Warburg and Courtauld Institutes, Rinascimento,* and *Zeitschrift für Kunstgeschichte.* **Essays:** Aegina, Arta, Cos, Lemnos, Melos, Patmos, Samos, Samothrace, Symi, Thasos, Tinos.

Hidber, Thomas. Assistant, Classics Department, Berne University. Author of *Das Klassizistische Manifest des Dionys von Halikarnass: Die Praefatio zu "De Oratoribus veteribus"* (1996). Contributor to *Der Neue Pauly: Enzyklopädie der Antike* and to *Metzler Lexikon der antiken Autoren.* **Essay:** Dionysius of Halicarnassus.

Higgins, Michael D. Professor of Geology, University of Quebec at Chicoutimi, Canada. Author of *A Geological Companion to Greece and the Aegean* (1996). **Essays:** Copper and Tin, Earthquakes, Geology, Gold, Iron, Marble, Minerals, Silver and Lead, Volcanoes.

Hoffman, C.A. Independent scholar. **Essays:** Atheism, Superstition.

Ierodiakonou, Katerina. Assistant Professor in Ancient Philosophy and Logic, National Technical University, Athens. Author of "The Image of Young Men in Visual Arts and Kavafis' Poems" in *Kavafis and the Young Men,* edited by D. Maronitis (1984, in Greek), "Rediscovering Some Stoic Arguments" in *Greek Studies in the Philosophy and History of Science,* edited by P. Nicolacopoulos (1990), *Alexander of Aphrodisias on Aristotle Prior Analytics 1.1–7* (1991), "The Stoic Indemonstrables in the Later Tradition" in *Dialektiker und Stoiker: Zur Logik der Stoa und ihrer Vorlaufer,* edited by K. Döring and T. Ebert (1993), "Alexander of Aphrodisias on Medicine as a Stochastic Art" in

Ancient Medicine in Its Socio-Cultural Context, edited by Ph.J. van der Eijk *et al.* (1995), "Aspasius on Perfect and Imperfect Virtues" in *Aspasius: The Earliest Extant Commentary on Aristotle's Ethics,* edited by A. Alberti and R.W. Sharples (1999), *Analysis in Stoic Logic* (in preparation), *Michael Psellos' Paraphrasis on Aristotle's De Interpretatione* (in preparation), and "Michael Psellos' Scholia on the *Prior Analytics"* in *L'Organon d'Aristote et ses commentateurs,* edited by R. Bodéus and L. Dorion (in preparation). Editor of *Topics in Stoic Philosophy* (1999). **Essays:** Logic, Stoicism.

Irmscher, Johannes. Professor Emeritus, Academy of Sciences, Berlin. Author of *Götterzorn bei Homer* (1950), *Einführung in die Byzantinistik* (1971), *Aristoteles als Wissenschafts Theoretiker* (1982), *Antike Fabeln* (1988), and many other books and articles on ancient and Byzantine Greece. **Essays:** Arcadia, Socrates.

Jeffreys, Elizabeth M. Bywater and Sotheby Professor, University of Oxford. Author of *The War of Troy* (1996) and *Digenis Akritis* (1998). Co-author of *Popular Literature in Late Byzantium* (1983). Editor of *Byzantine Papers* (1981) and *Studies in John Malalas* (1990). Co-translator of *The Chronicle of John Malalas* (1986). **Essays:** Chronicles, Chronology.

Jenkins, Fred W. Head of Collection Management and Associate Professor, Roesch Library, University of Dayton. Author of *Classical Studies: A Guide to the Reference Literature* (1996). Contributor to *Zeitschrift für Papyrologie und Epigraphik, Bulletin of the American Society of Papyrologists, College and Research Libraries News, Eranos, Studia Papyrologica,* and *Archiv für Papyrusforschung.* **Essay:** Archives (antiquity).

Johnson, Edward. Professor and Chair, Department of Philosophy, University of New Orleans. Contributor to *Ethics and Animals,* edited by Harlan B. Miller and William H. Williams (1983), *Earthbound* (1984), *Animal Rights and Human Obligations,* edited by Tom Regan and Peter Singer (1989), *Encyclopedia of Ethics* (1992), *Cambridge Dictionary of Philosophy* (1995), *Nagging Questions,* edited by Dana E. Bushnell (1995), *Human Sexuality* (1997), *Encyclopedia of Applied Ethics* (1998), and to *Environmental Ethics, Ethics and Animals, Between the Species, Ethics, Philosophical Review, Social Science Quarterly, Philosophy of the Social Sciences,* and *Tulane Studies in Philosophy.* **Essays:** Freedom.

Kalogeras, Dimitris A. Attorney at Law and doctoral candidate, University of Amsterdam. Author of "Grundzüge des griechischen Seerechts" in *Griechisches Wirtschafts und Unternehmensrecht,* edited by I.M. Papagiannis (1997), and of articles on legal matters in *Athens University Law Review, Efarmoges,* and *Review Enausma.* Member of the board of directors of *Athens University Law Review.* **Essays:** Cleomenes III.

Kapsomera, Celia. Assistant Vice-President, Gerling Global Reinsurance, New York. Author of short stories published in *Ta Nea* and *Kathimerini* (1980–81). **Essay:** Sporades.

Karageorghis, Vassos. Professor Emeritus, University of Cyprus. Author of many books and articles on ancient Cyprus. **Essays:** Paphos, Salamis (city).

Karamanolis, George E. Doctoral candidate in ancient philosophy, Keble College, Oxford. **Essays:** Academy, Books and Readers, Diogenes Laertius, Epigram, Fate, Lyceum, Orphism, Pyrrho, Zeno.

Karanika-Dimarogona, Andromache. Doctoral candidate, Classics Department, Princeton University. Co-author of a textbook on modern Greek (in preparation). **Essays:** Calabria, Gods and Goddesses, Italy, Nonnus, Orgiastic Cults, Pelion, Sacrifice, Women's Cults.

Keen, Antony G. Associate Lecturer, Open University. Author of *Dynastic Lycia* (1998) and of an article on Athenian campaigns in Karia and Lycia in the *Journal of Hellenic Studies.* **Essays:** Lycia, Xanthus.

Kennedy, Jennifer Y.T. Freelance writer. **Essay:** Naxos.

Kitromilides, Paschalis. Professor of Political Science, University of Athens, and Director, Institute of Neohellenic Research, National Hellenic Research Foundation. Author (in English) of *Cyprus* (1982, 1995), *The Enlightenment as Social Criticism: Iosipos Moisiodax and Greek Culture in the Eighteenth Century* (1992), *Enlightenment, Nationalism, Orthodoxy: Studies in the Culture and Political Thought of South-Eastern Europe* (1994). Author (in Greek) of *Political Thinkers of the Modern Era* (1989, 1999), *The French Revolution and Southeastern Europe* (1990, 2000), *Modern Greek Enlightenment Political and Social Ideas* (1996, 1999), and *Rhigas Velestinlis Theory and Practice* (1998). Co-editor (in English) of *Small States in the Modern World: The Conditions of Survival* (1979) and *Culture and Society in Contemporary Europe: A Casebook* (1981).

Kosso, Cynthia K. Associate Professor of History, Northern Arizona University. Author of an article on a late Roman complex at Palaiochora in southern Euboea and other articles on Roman Greece. Contributor to *Philosophy of Science.* **Essays:** Achaea, Chalcis, Euboea, Political History 31 BC-AD 330, Roman Period.

Kyllo, Eric. Lecturer, Department of Classics, Baylor University. Author of an article on Lucretius in *Classical Bulletin* (1997) and numerous reviews. **Essays:** Harbours, Larissa.

Lapatin, Kenneth D.S. Professor of Art History, Boston University. Author of "Antiquity Consumed: Transformations at San Marco" in *Antiquity and Its Interpreters,* edited by Alina Payne *et al.* (2000) and *Chryselephantine Statuary in the Ancient Mediterranean World* (in preparation). Contributor to *Archaeology, American Journal of Archaeology, Art Bulletin, Bonner Jahrbücher des Rheinischen Landesmuseums, Museum Helveticum, Hesperia, Bryn Mawr Classical Review, International Journal of the Classical Tradition,* and *Source: Notes in the History of Art.* **Essay:** Ivory.

Lavdas, Kostas A. Senior Lecturer in Political Science, University of the West of England; Research Associate, Hellenic Centre for Political Research, Panteion University, Athens. Author of *The Europeanization of Greece* (1997) and co-author of *Politics, Subsidies and Competition* (1999). Contributor to the *European Journal of Political Research* and *Journal of Political and Military Sociology.* Member of the editorial board of *Episteme koi Koinonia.* **Essays:** Army, Government.

Lemos, George. Director of Freud Lemos Ltd. **Essays:** Cilicia, Ships and Shipping.

Liebeschuetz, J.H.W.G. Professor Emeritus, Department of Classical and Archaeological Studies, Nottingham University. Author of *Antioch* (1972), *Continuity and Change in Roman Religion* (1979), *Barbarians and Bishops* (1990), and *From Diocletian to the Arab Conquest* (1990). **Essays:** Beirut, Gaza, Libanius, Miletus, Syria.

Lingas, Alexander. British Academy Postdoctoral Research Fellow, St Peter's College, Oxford. Author of "Hesychasm and Psalmody" in *Mount Athos and Byzantine Monasticism,* edited by Anthony Bryer and Mary Cunningham (1996) and "The Liturgical Use of the Kontakion in Constantinople" in *Liturgy, Architecture and Art in the Byzantine World* (1995). Contributor to *Byzantinorossica* and *Orientalia Christiana Periodica.* **Essays:** Hymnography, Instruments, Music, Song.

Littlewood, A.R. Professor, Department of Classical Studies, University of Western Ontario. Author of *The Progymnasmata of Ioannes Geometres* (1972), *Michaelis Pselli Oratoria Minora* (1985), *Under the Presidency of Saint Paul: The Case of Byzantine Originality* (1996), and various articles, mainly on Byzantine literature (especially the Byzantine letter), Byzantine gardens, and the symbolism of the apple. Editor of *Originality in Byzantine Literature, Art and Music* (1995). Co-editor of *Byzantine Garden Culture* (in preparation). President of the Canadian Committee of Byzantinists. **Essays:** *Anthology,* Armenia, Astrology, Biography and Autobiography, Byzantium, Calendar, Coronation, Education, Exile and Detention, Games and Sports, Gardens, Hunting, Imperialism, Literacy, Olympic Games, Oracles, Siegecraft, Technology.

Louth, Andrew. Professor of Patristic and Byzantine Studies, University of Durham. Author of *Origins of the Christian Mystical Tradition: Plato to Denys* (1981), *Denys the Areopagite* (1989), and *Maximus the Confessor* (1996). **Essays:** Constantine I the Great, Philo.

McDonald, Marianne. Professor of Classics and Theatre, University of California, San Diego. Member of the Royal Irish Academy. Author of *Terms for Happiness in Euripides* (1978), *Euripides in Cinema: The Heart Made Visible* (1983), *Ancient Sun, Modern Light: Greek Drama on the Modern Stage* (1991), *Star Myths: Tales of the Constellations* (1996), "Medea as Politician and Diva: Riding the Dragon into the Future" in *Medea: Essays on Medea in Myth, Literature, Philosophy, and Art,* edited by James J. Clauss and Sarah Iles Johnston (1997), and *Mythology of the Zodiac* (2000). Founder of *Thesaurus Lingua Graecae,* a project to computerize Greek literature. Member of the editorial board of *Raritan.* President of *Desmi,* Center for Research and Practical Realization of Ancient Greek Drama, Athens. **Essays:** Aeschylus, Euripides, Sophocles.

Macfarlane, Roger T. Associate Professor of Classics, Brigham Young University. Author of "Tyrrhena Regum Progenies: Etruscan Literary Figures from Horace to Ovid" in *Etruscan Italy: Etruscan Influences on the Civilizations of Italy from Antiquity to the Modern Era,* edited by John F. Hall (1995), and articles on Caesar's *Bellum Civile,* Goethe's "Kronos als Kunstrichter", and the classics in early 19th-century America. **Essays:** Aratus, Hipparchus.

Martin, M.E. Honorary Fellow, Institute for Advanced Research, University of Birmingham. Contributor to *English Historical Review, Byzantinoslavica, Archeion Pontou, Byzantino-Bulgarica, Byzantinische Forschungen, Rivista di Bizantinistica, Journal of Hellenic Studies, Byzantine and Modern Greek Studies, Anatolian Studies,* and *Byzantinische Zeitschrift.* **Essay:** Sinope.

Mason, Hugh J. Associate Professor, Department of Classics, University of Toronto. Author of *Greek Terms for Roman Institutions* (1974), and articles on ancient novels, Greek topography in relation to literary texts, modern Greek literature, and the linguistics of classical languages. Associate editor of *Phoenix.* **Essays:** Lesbos.

Matthews, Elaine. Co-editor of *Lexicon of Greek Personal Names* and Fellow of St Hilda's College, Oxford. **Essay:** Onomastics.

Mayer, Kenneth. Assistant Professor, Assumption College, Worcester, Massachusetts. Contributor to *American Journal of Philology, Gymnasium, Bryn Mawr Classical Review,* and *Zeitschrift für Papyrologie und Epigraphik.* **Essay:** Diodorus Siculus.

Mills, Sophie. Chair of Classics, University of North Carolina at Asheville. Author of *Theseus, Tragedy and the Athenian Empire* (1997). **Essays:** Archilochus, Cimon, Sappho, Themistocles, Theocritus.

Momigliano, Nicoletta. Lecturer in Archaeology, Department of Archaeological Sciences, University of Bradford. Editor of *Knossos: A Labyrinth of History: Papers in Honour of Sinclair Hood* (with H. Hughes-Brock and D. Evely, 1994). Author of "La catastrofe di Thera (Santorini): Problemi cronologici e conseguenze storiche" in *I terremoti prima del Mille,* edited by E. Guidoboni (1989), "Duncan Mackenzie" in *Klados: Essays in Honour of J.N. Coldstream,* edited by C. Morris (1995), *Duncan Mackenzie: A Cautious Canny Highlander and the Palace of Minos at Knossos* (in preparation), *Knossos Pottery Handbook: Neolithic to the End of the Bronze Age* (in preparation), and of articles on Knossos. **Essay:** Crete.

Morgan, J.R. Senior Lecturer in Classics, University of Wales, Swansea. Editor of *Greek Fiction: The Greek Novel in Context* (with Richard Stoneman, 1994). Translator of Heliodoros' *Aithiopika* in *Collected Ancient Greek Novels,* edited by B.P. Reardon (1989). Contributor to *Classical Quarterly, Journal of Hellenic Studies, Transactions of the American Philological Association, Classical Antiquity, Classical Philology, Latomus, Groningen Colloquia on the Novel, Nottingham Classical Literature Seminars,* and *Philologus.* **Essays:** Heliodorus, Longus, Novel (antiquity).

Moustakas, Konstantinos. Doctoral candidate, University of Birmingham. Author of articles on the fleet base of Constantinople during the Byzantine period and the name of Argos Oresti Kou. **Essays:** Chalcidice, Florina, Kavalla, Serres, Verroia.

Murison, Charles L. Professor of Classical Studies, University of Western Ontario. Author of *Galba, Otho and Vitellius: Careers and Controversies* (1993) and of articles on the peace of Callias, Darius III and the battle of Issus, and Roman history of the 1st century AD. Editor of *Suetonius: Galba, Otho, and Vitellius* (1992) and *Rebellion and Reconstruction: Galba to Domitian* (1999). **Essays:** Cartography, Crates of Mallus, Delian League, Historiography (Antiquity).

Nesselrath, Heinz-Günther. Chair of Greek, University of Bern. Author of *Lukians Parasitendialog* (1985), *Die attische Mittlere Komödie* (1990), *Ungeschehenes Geschehen* (1992), and articles on Silius Italicus, Xenophon, Lucian, Livy, Claudian, Solon, Julian the Apostate, Herodotus, Aristophanes, Valerius Flaccus, and the Church historian Socrates. Editor of *Rudolf Kassel: Kleine Schriften* (1991) and *Einleitung in die griechische Philologie* (1997). **Essays:** Aristides, Callimachus, Dio Cocceianus, Herodas.

Nicgorski, Ann M. Assistant Professor of Art History, Willamette University; Assistant Director, Mochlos Excavations, Crete. Author of "Polypus and the Poppy: Two Unusual Rhyta from the Mycenaean Cemetery at Mochlos" in *Meletemata: Studies in Aegean Archaeology Presented to Malcolm H. Wiener as He Enters His 65th Year,* edited by Philip Betancourt *et al.* (vol. 20 of *Aegaeum,* 1999). Contributor to *Athenian Potters and Painters: Catalogue of the Exhibit,* edited by John H. Oakley (1994), the *Encyclopedia of the History of Classical Archaeology,* edited by Nancy Thomson de Grummond (1996), and *Mochlos Period III* and *Mochlos Period IV,* edited by Jeffrey S. Soles and Costis Davaras (in preparation). **Essays:** Etruscans, Jewellery, Mallia.

Nicolaidis, Efthymios. Associate Research Professor, National Hellenic Research Foundation. Author of *Le Développement de l'astronomie en URSS, 1917–1935* (1984) and *The Prologues of the Scientific Books of the Greek Enlightenment: A Statistical Analysis* (with Th. Behrakis, 1990). Editor of *The Mathematical Sciences in the Greek World under the Ottoman Rule* (1992) and *Trends in the Historiography of Science* (with K. Gavroglu and J. Christianides, 1994). Contributor to *Archives Internationales d'Histoire des Sciences, Byzantiaka, Cahiers d'Analyse des Données, Etudes Balkaniques, Journal for the History of Astronomy, Revue d'Histoire des Sciences,* and *Thesaurismata.* **Essay:** Astronomy.

Oberhelman, Steven M. Professor of Classics at Texas A & M University. Author of *Rhetoric and Homiletics in Fourth-Century Christian Literature* (1991), *The Oneirocriticon of Achmet* (1991), *Epic and Epoch: Essays on the Interpretation and History of a Genre* (1994), and *Prose Rhythm in Latin Literature of the Empire: First Century* BC *to Fourth Century* AD (1998). Editor of *Helios.* **Essays:** Corinth (Sack of), Dodona, Eleusis, Eratosthenes, Laurium, Paestum.

Oliver, Graham. Senior Research Fellow, School of Archaeology, Classics and, Oriental Studies, University of Liverpool. Editor of *The Epigraphy of Death: Studies in the History and Society of Greece and Rome* (in preparation) and co-editor of *Hellenistic Economies* (in preparation). **Essays:** Agriculture, Attica, Coinage, Economy, Inscriptions, Phoenicians, Pyrrhus.

Otte, T.G. Lecturer in International History, University of the West of England, Bristol. Editor of *Military Intervention* (1995) and *Personalities, War and Diplomacy* (1997). Contributor to *English Historical Review, Diplomacy and Statecraft, Contemporary Security Policy,* and *New Dictionary of National Biography.* Review editor, *Diplomacy and Statecraft.* **Essay:** Diplomacy.

Parker, Robert. Wykeham Professor of Ancient History, and Fellow of New College, Oxford. Author of *Miasma* (1983) and *Athenian Religion: A History* (1996).

Pettifer, James. Visiting Professor, Institute of Balkan Studies, University of Thessalonica; Research Fellow, European Research Institute, Bath University. Author of *The Greeks: Land and People since the War* (1992), *Blue Guide Albania* (1993), *Albania: From Anarchy to a Balkan Identity* (with Miranda Vickers, 1997), *The Turkish Labyrinth* (1997), and *Blue Guide Bulgaria* (1998). Member of the editorial board of *Albania Life.*

Plested, Marcus. Independent Scholar. Contributor of articles on patristics, Eastern Christian ascetism, and contemporary Orthodoxy to *Christianskij Bostok, Sobornost, Sourozh, Studia Patristica,* and *Touchstone.* **Essays:** Clement of Alexandria, Mysticism.

Podlecki, Anthony J. Professor of Classics, University of British Columbia, Vancouver. Author of *The Political Background of Aeschylean Tragedy* (1966), *The Life of Themistocles* (1975), *The Early Greek Poets and Their Times* (1984), *Perikles and His Circle* (1998), and articles on ancient Greek drama and society. Editor and translator of *The Eumenides* by Aeschylus (1989). **Essays:** Democracy, Pericles, Pisistratus.

Powell, Judith. Research Adviser, Department of Classics and Ancient History, University of Queensland. Author of *Fishing in the Prehistoric Aegean* (1996) and of articles on fishing in ancient Greece. **Essay:** Fishing.

Rackham, Oliver. Fellow of Corpus Christi College, Cambridge. Author of *The History of the Countryside* (1986), *The Making of the Cretan Landscape* (with J.A. Moody, 1996), *The Nature of Mediterranean Europe* (with A.T. Grove, 2000), and an article on the historical ecology of Boeotia. **Essays:** Botany, Climate, Ecology, Forestry, Landscape, Woodworking.

Reece, Steve. Associate Professor of Classics, Saint Olaf College, Northfield, Minnesota. Author of *The Stranger's Welcome: Oral Theory and the Aesthetics of the Homeric Hospitality Scene* (1993). Contributor to *Bulletin of the American Society of Papyrologists, American Journal of Philology, Oral Tradition, Classical Journal, Classical World, Glotta,* and *Favonius.* **Essay:** Syllabary.

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Lexicographica Byzantina: Beiträge zum Symposion zur byzantinischen Lexikographie, edited by W. Hörandner and E. Trapp (1989), *Lexikon zur Byzantinischen Gräzität* (1994–96), and *Semantik, Lexikographie und Computeranwendungen,* edited by N. Weber (1996). Contributor to *Byzantion.* **Essays:** Epistolography, Grammar, Schools and Universities.

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